

PHYSICAL CULTURE

Published Monthly and Primarily Devoted to Subjects Appertaining to Health, Strength, Vitality, Muscular Development and the Care of the Body. Also to Live and Current Matters of General Interest.

VOLUME XXII

OCTOBER, 1909

No. 4

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BERNARR MACFADDEN, EDITOR-IN-CHIEF.

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Send money by check, P. O. or express order, or registered letter. When sending check always add 10 cents for collection charges. Stories and articles of unquestionable merit and photographs suitable for publication invited. The editor does not assume responsibility for opinions of contributors.

We accept no advertisement from those whose wares we cannot conscientiously recommend. Patent medicine and other "fake" remedies cannot buy space of us at any price. We will consider it an especial favor if readers will furnish us with proof of any fraudulent claims made by advertisers in our columns. We have refused, are still refusing, to insert advertisements which deceive and rob the ordinary of money and health. If any of this kind by accident secure insertion we desire to know of it as soon as possible.

CHANGE OF ADDRESS. Notify immediately. In ordering changes, give old as well as new address.

DATE OF EXPIRATION of your subscription is printed on wrapper. Please renew promptly.

THE ADVERTISING RATE IS \$1.60 PER PAGE PER INSERTION. HALVES AND QUARTERS PRO RATA. CARDS LESS THAN ONE QUARTER PAGE \$1 PER LINE.

DEEP BREATHING

versus COLDS

A Cold (Coryza), is an acute disease of the upper air passages. It is not, as many believe, simply an unpleasant, but harmless manifestation found in health. A Cold is always dangerous, even for the strongest person.

Coryza usually begins in the chambers of the nose. The inhalation of "cold germs" marks the beginning of the trouble. As the disease progresses it works its way downward, until finally the bronchial tubes and lungs become infected. The symptoms are well known—first sneezing, then a "cold in the head," finally a deep bronchial and lung cough. It is then that only those with abundant rich blood can avoid *Consumption* or *Pneumonia*, two diseases that destroy nearly one third of adult life.



436 CUBIC INCHES BREATHING CAPACITY

A cold, besides placing our life in jeopardy, also leads to distressing and dangerous chronic affections. Catarrh, Asthma, Rheumatism and various bronchial troubles are due directly to repeated colds.

DEEP BREATHING

Deep breathing makes the upper air passages immune to Colds. Thousands of my old pupils report that they now cannot contract a cold, even under the most severe exposure. They need no longer be "Draught Dodgers." Their blood is so rich and warm that they cannot contract a cold. Even in extreme weather their hands and feet are warm.

CATARRH

If you have catarrh, don't waste your time with local remedies. Free yourself of the unpleasant and filthy disease through deep breathing, the only "cure" that positively cures. Bear this in mind.

BRONCHIAL TROUBLES

What is true in reference to Catarrh is also true in regard to Bronchial troubles. Learn to breathe properly. Compel pure air to come in contact with the diseased membranes.

Become a HABITUAL DEEP BREATHER.

BEGIN NOW

Now is the time to temper your body to withstand the attack of the "Cold Germ." Send for my pamphlet, "Breathing for Health, Strength and Endurance," descriptive of my Pneumauxetor and course in Breathing and Physiculture. The course is more reasonable in cost, yet more effective than any other before the public to-day. I know it will appeal to your good judgement.

I also publish a 64 page book on Deep Breathing (Lung and Muscle Culture). The price is 10cts. This little work contains hundreds of points of valuable information, is fully illustrated, and clearly describes correct and incorrect breathing. It contains data and information of vital importance to all desiring to attain a disease resisting body.

ADDRESS

P. VON BOECKMANN, Respiratory Specialist
1683 TERMINAL BUILDING, 103 PARK AVE., NEW YORK CITY

We stand back of our Advertisers—Say "I saw it in Physical Culture."

PHYSICAL CULTURE

DEVOTED TO HEALTH, STRENGTH, VITALITY, MUSCULAR DEVELOPMENT, AND THE CARE OF THE BODY

PUBLISHED BY PHYSICAL CULTURE PUBLISHING COMPANY, INC., BERNARD MACFADDEN, PRESIDENT,
S. W. HAINES, SECRETARY AND TREASURER, PLATIRON BLDG., NEW YORK CITY.

Vol. XXII.

October, 1909.

No. 4.

THE EDITOR'S VIEWPOINT

THAT emaculated and skeleton-like whitened product of the wheat, bleached flour, is being defended by a majority of the larger milling companies. The ruling of Secretary of Agriculture Wilson that the manufacture and sale of bleached flour is a violation of the United States Pure Food Law has not met with the favor of the milling trade. Indeed, they are of the opinion that the ruling is unwarranted. It is said that nearly eighty per cent. of the millers in the United States bleach their flour, and they contend that they are violating no law, that Secretary Wilson's ruling is based on his own individual opinion, and they refuse to change their process until there is a ruling in a Court of law to determine his authority. The millers invited prosecution, and in order to place the matter before the courts, several specimens of flour were seized in Iowa some time ago.

THE FIGHT FOR BLEACHED FLOUR

Now the millers who are especially interested in foisting this so-called food upon the public have spent their "good money" for the elaborate machinery required in the bleaching process, but the most interested party is John E. Mitchell, General Manager of the Alsop Process Company, which controls the machinery for bleaching flour. He has raised a fund of one hundred thousand dollars with which to combat Secretary Wilson's ruling. The health of the public is of no interest to him. His money is invested in machinery, and naturally he is desirous of saving his investments. If the process of bleaching flour places before the American public a food but partially nutritious and injurious to an extreme degree, nothing more than human life is wasted, and human life is cheap. Machinery, one must remember, is expensive. This is not unlike the policy of the railroad magnate, long since passed away, who once said, "the public be damned." He was interested in his own investments, and the public could take care of themselves. It is about the same as far as bleached flour is concerned. Suppose the teeth of a few million are starved to death, suppose at twenty-five or thirty it is necessary for this number of citizens to secure false teeth, because of the partial food that is furnished by bleached flour. All that is immaterial. The miller must have his profit. The bleaching process must be continued, for has not the maker of the machinery decided that even those whose duty it is to interpret the law at Washington have but a meagre understanding of their business?

A prominent miller, who has been in the business for fifty years, writing in the last issue of *PHYSICAL CULTURE*, stated: "And lastly, in order to lay the Almighty, the God of Nature, completely in the shade for not creating a wheat that would make whiter flour, our modern experts have resorted to very questionable methods of bleaching the flour and thus producing a super whiteness, for which purpose various chemicals, some of which are deadly poisons, together with electricity, have been employed. Among the more prominent of these are alum, nitric acid, etc., in combination with electricity. This, when combined with the flour, instantaneously bleaches it to a snowy, or I might say ghostly, whiteness."

It is this process for which many millers and especially the manufacturers of the flour-bleaching-process machinery are contending. Did you ever hear of such brazen effrontery? Here they have been selling a food that is defective in its nourishing qualities, and after they have been told to change their process and have been given six months to make this change, they have given little or no attention to the ruling of the officials in charge of this department of the government. White flour at its best is a partial food. Bleached white flour is of still less value as far as food elements are concerned. The bleaching process materially affects the food quality of the flour, and the millers are fighting for their so-called rights to foist upon the public a partial or incomplete food.

I would suggest to Secretary Wilson a very simple experiment with a view of determining the incomplete qualities of bleached white flour. This experiment will not take a very long period and it will present to a jury in a startling manner the real facts as to the nourishing qualities of this so-called food that many milling companies insist upon foisting upon the public. I would suggest that Secretary Wilson take four dogs, that he keep them in his own house where no one can feed them or in any way tamper with them, that all four of the dogs be freely supplied with water, that one of the dogs be fed on food products made exclusively of bleached white flour, that another dog be fed on products made of the ordinary unbleached white flour, that another one be fed on those foods made of whole-wheat flour, including the whole grain, even the bran, and that the remaining dog be compelled to fast entirely with the exception of what water he might desire. The result of this experiment I am satisfied will be about as follows: The dog that is fed on bleached white flour will die first, the one that is fed on white flour will pass away next, and the fasting dog will be the next one to die, and the dog which is fed on whole-wheat flour will be in as good or in better condition at the end of the experiment than at the beginning. All this is very simple. The same experiment can be tried on human beings and about the same results will accrue, and if there is any stronger proof needed than the result of an experiment of this nature as to the incomplete qualities of this so-called food, I would like to learn of it.

Let every clear-minded physical culturist do the best he can to condemn this so-called food, as it richly deserves, at every possible opportunity. White flour is a fake staff of life. Bleached white flour is an incomplete product of white flour. Both of these so-called foods remind me of cemeteries, and dangling skeletons, and if I could call from the grave the millions of human souls that have been made to pass away before their time because of this incomplete food, it would make an army greater than has ever been placed in the field by any nation at any time. Not only do I believe that white flour products are the cause of premature deaths, but there are numerous chronic diseases that are caused solely by this one so-called food, and when the last day comes, when the roll is called, when the All-wise Power above enumerates the crimes committed against manhood and womanhood, the white flour evil will be prominently placed alongside of prudery, the drink traffic, the emasculating corset, and other prominent devastating influences.

I would like every physical culturist to lend Secretary Wilson a helping hand in this fight against bleached white flour. Write him a letter of encouragement, tell him what you think of his splendid efforts to save the boys and girls from the blighting effects of this starvation food. As our readers can well realize, he is fighting a strong

combination. He is fighting men whose highest ideal is represented by financial profit. Secretary Wilson no doubt stands for a better human being and I hope my readers will encourage him with a personal communication addressed to the Agricultural Department at Washington.

THE annual report of the Young Men's Christian Association of the University of Wisconsin gives some very important information as to the progress of the purity work in that University. In every college and university there is a deplorable need among the students for more information of the physiology of sex. They come to these institutions with mistaken impressions on these subjects, and as a rule, the instruction that they receive during their entire period of study comes entirely from gross-minded students with whom they happen to associate. They learn nothing of the divine principles that should be made a part of the life of every man. They learn nothing of the higher ideals which should control men and women at the most important period of their lives, and they imbibe all the perversion and come in contact with the licentiousness which is so freely indulged in at these institutions of learning.

**COMPULSORY
PURITY LECTURES
AT THE UNIVER-
SITY OF
WISCONSIN**

The Young Men's Christian Association of Wisconsin is to be congratulated. It has not only arranged for a series of lectures on these delicate but important subjects at this University, but it has made the attendance of these lectures by freshmen and sophomores compulsory. I venture to say that the information that these students will secure in these lectures will be of more real importance to them than the studies contained in the entire curriculum of the University. The knowledge will be of more importance, because it will be useful every day of their lives. It will keep them away from evils that would lower their moral character and materially lessen their vital and physical energies. Here is a work that should be called to the attention of the president of every university.

The mystery of sex appears deeper and deeper with the gradual development of the body. If this mystery is unfolded in the right manner, if the emotions that have to do with this divine principle of human life are carefully understood and accurately guided, nothing but benefit will result, but when the mistakes are made that come with hypocrisy and prudery, when the most divine emotions of human life are branded as vulgar and vile, when even the body itself is looked upon as debased, then indeed must one struggle for the ideals and principles that are essential to lead on towards complete, superb manhood. The evils along life's pathway should be clearly pointed out, and where mothers and fathers have neglected their plain duty it is the duty of colleges and universities to supply this deficiency, and there should be a department of purity in every school that will give complete details on these vastly important subjects.

"CLOTHES make the man" is a remark that is often made at the present time, and there is much truth in the statement as far as the views of the average individual is concerned. As a rule, however, the statement is made in a figurative sense, but that it is literally true in many instances is indicated quite clearly in an advertisement that is considered so valuable as to be copyrighted by the Merchant Tailors' League. The following interesting and instructive statements appear in the advertisement referred to:

**THE TAILOR-
MADE MAN**

"Is your chest sunk in? The merchant tailor knows how to shape your coat to

hide it. If one shoulder drops too much, he can correct the unevenness. If your shoulder blades protrude too far, he can cut his pattern and drape the cloth to conceal the ugliness. Of course, you cannot have this done by guess. You must be studied and careful measurements must be made. Aside from the question of greater economy, the improvement in your appearance ought to be enough inducement to have your clothes made to order."

You often hear of the tailor-made girl, of a costume with cotton batting here and there to fill out the angular outlines, but you do not hear very much of the tailor-made man, whose clothes are made to hide the defects of his figure. What is the use of developing muscle? Why need one spend his time trying to develop a manly figure when these attractive features can be bought of your tailor? We had thought all along that the art of deceit as far as personal comeliness is concerned was mostly confined to the female sex. With corsets to create a figure, with padding for hips and bust when needed, a woman can quickly simulate the attractions that are supposed to come with embonpoint. To the observing eye, however, it is impossible to simulate the attractiveness that comes with superior health and strength. You can paint the cheeks, you can even round out the form wherever you may consider it necessary, but you cannot give one the appearance of life and vivacity. You cannot add to one that mysterious magnetism that is a part of every healthy human organism. It is only the shallow brained who are deceived by padded and painted beauties. The real man or woman who has taken the time to study human life could not possibly be deceived by such superficialities. Sham men and women are to be found everywhere. They look and act more like clothed dummies than real human beings. They have just about as much individuality, about as much character, as a clothing dummy. They go through life parrot-like, they imitate the Smiths and the Browns, and their entire life is spent trying to act like someone else whom they might have envied. It makes but little difference, however, for such shallow human souls are classed with the ciphers. They come and they go. No one is any better, and perhaps no one is any worse for their appearance in this human sphere. They are like so much chaff that is blown into existence and soon lost to view.

Don't be an imitation. Try to be an individual. Study yourself and learn to be yourself. You cannot be somebody else. It is your duty to bring out your own God-given powers in accordance with the dictates of your own soul. Let others work out their own salvation according to their own enlightenment, but you should study your character with a view of bringing out the best there is within yourself, and the only guide should be your own conscience and your own intelligence. If you follow a rule of this kind you cannot be a sham.

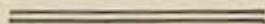
BEGINNING with the January issue of PHYSICAL CULTURE, the yearly subscription price will be \$1.50. For some time now our publication has been selling for 15c. a copy on the news-stands, making a total yearly price of \$1.80. It is hardly fair to the news-stand buyers to continue our price at \$1.00 yearly. In fact, the price does not properly cover the cost of manufacturing the magazine. As our readers can well realize, we are trying to make each issue of PHYSICAL CULTURE a better magazine. Month by month readers will be able to notice a decided improvement. We are giving you the results of the elaborate experimentation that is being made not only by the thousands of subscribers that are interested in the welfare of this publication, but also by the writer himself in the various institutions in which he is interested.

The study of health building simply broadens the field of investigation. The more you learn the more there is to learn. The more you study, the more interesting becomes the various new discoveries that you are bound to make.

It is the editor's intention to publish in PHYSICAL CULTURE every new theory that he may find valuable to the readers of this publication. He keeps nothing back. Within the articles that he has published from time to time all possible information is included. Some articles, in fact, contain information that could easily be put into book form and be sold for a dollar or more per copy. It is this policy of giving our readers everything we possibly can which has made this magazine such a splendid success. We have nothing that is too valuable to place before our readers. Month by month you will find information that will unquestionably be new to you, no matter how much you have been studying the subject. For more than twenty-five years the writer has been devoting his time to the physical culture propaganda, and strange as it may seem, he is as enthusiastic in his studies now as he ever was. The longer one studies the more there is to learn, the greater becomes one's field of knowledge, and future students along this line will look upon us as merely pioneers. We have broken the ground, we have led the way, we have started public interest in a reform that stands for a higher and nobler manhood and womanhood.

The PHYSICAL CULTURE magazine has led all other publications in its particular sphere almost since its inception. We now have more readers than all other publications devoted to this subject combined, but we want to still more expand our influence and our principal reason for adding fifty cents to our yearly subscription price is to enable us to make a still better magazine. We are not satisfied either with the present quality or quantity. We want to give our friends the best there is to be had.

Until January first 1910 yearly subscriptions will be accepted at \$1.00 each. If you care to subscribe for five years or ten years at that price, we will be glad to accept your subscription. In fact, we want all the subscriptions we can secure at this price, before the date named, but beginning with the January number PHYSICAL CULTURE will be \$1.50 per year, and we can assure our readers in advance that it will be worth every cent of this amount, and to those who are really in need of the knowledge that we are presenting, it might reasonably be said that it will be worth a hundred times the sum, for health is worth more than money, and increased health and strength are bound to come to every regular reader of this publication. Even if you should already possess the knowledge that is presented here month by month, the stimulus of the reminder that will come to you each month will be of incalculable value.



IN this issue you will find an article that should be of interest to every mother and father. No matter how little the average man or woman may be interested in the development of muscular power and beauty for himself or herself, a parent is always anxious to see his little ones strong and beautifully formed. If the average father had the faintest conception of the marvelous value of scientific body-building in improving his little ones, he would not waste a minute in his search for information that is so valuable under these circumstances. The average child can be molded almost as radically and thoroughly as a sculptor with chisel and mallet

SAVING THE BABIES

can model the stone image before him. You can strengthen weak muscles, you can round out and make beautiful emaciated and awkward bodies. Where there is disease, you can create health. All that is required to make this apparently marvelous change is a knowledge of the few simple laws that are essential for the physical culture of growing children. When I look around me and see the white faces, the poor, weakly bodies of growing children, and when at the same time I fully comprehend the marvelous change that could be made in each one of these tiny, struggling human souls, I more than ever realize the tragical need of the knowledge that we are so freely dispensing in this publication.

Mothers, fathers, make your children strong, give them their true birthright of health and strength. Suppose they were always weakly—you may even say that they

inherited a weak constitution—even with all this handicap, if you will properly assume your duties, if you will learn the simple rules that have to do with the breathing of outdoor air, the exercises that can be taken in play, or the simple diet that is essential to develop strength and health, you can depend upon an improvement in your progeny that will be amazing in every particular.

THE principles advocated in this publication are to be taught in detail, beginning with October 1, in one of the most magnificent buildings in Chicago. The Physical Culture Training School, which gives particular attention to the teachings promulgated by this publication, has moved into the Lakeside Club, a magnificent five story building located at 42nd street and Grand Boulevard. In this splendid structure

**A GIGANTIC
FORWARD STEP
IN THE PHYS-
ICAL CULTURE
MOVEMENT**

the laws of health as advocated in this magazine since its inception will be taught in detail. The principles that PHYSICAL CULTURE has been fighting for are advancing in an unprecedented manner. Everywhere our theories are being taken up, and even the advanced members of the medical profession are beginning to realize the uselessness of drugs, and are reaching out for a more exact science. Through the theories that we advocate there is a possibility of attaining an exact science of healing that is bound to be recognized everywhere within the very near future. The Physical Culture Training School makes a business of educating teachers. These graduates are now to be found all over the country, but the school is merely in its infancy. There is a tragic need everywhere for the knowledge that is being spread everywhere by these finely developed, clean minded men and women that have been educated in this school. With this move, this school will be placed on a basis that should raise its graduates, in the eyes of the public, to a point even above that hoped for by the fondest dreamer. Our movement must be stable indeed when a building worth a half a million dollars can be purchased in the western metropolis for the particular purpose of teaching our propaganda.

Bernarr Macfadden

☞ Address all mail intended for the Editorial Department to
BERNARR MACFADDEN, BATTLE CREEK, MICHIGAN.

☞ Address all orders for subscriptions and premiums and for the business department to Physical Culture Publishing Company, Flatiron Building, New York City.

Developing a Powerful Physique

The Science of Physcultism

WEIGHT-LIFTING WITHOUT WEIGHTS—THE DEVELOPMENT OF THE BODILY POWERS THROUGH PHYSCULTISM, THE SCIENCE OF ACQUIRING STRENGTH THROUGH SPINAL DEVELOPMENT

By Bernarr Macfadden

LESSON No. IX.

MANY of our friends will perhaps be of the opinion that after having presented so many hundreds of exercises in this publication we will some day "run out" of new material. There is but slight danger of such a possibility, first of all, because the more you study any subject the broader the subject becomes. The more you learn the more there seems to be to learn. The acquirement of knowledge simply broadens the field of research, and the sources from which you can secure material multiply to such an extent that ultimately, if it were necessary, we could probably publish a *PHYSICAL CULTURE* magazine every day in the year and still not be without interesting and valuable material.

I hope that by now those who have followed these lessons month by month and who are continuing them persistently and regularly will have secured results of a gratifying character. If you are desirous of building a strong physique you must remember that there is work before you. You cannot develop strong muscles without effort. You have to exercise vigorously and with regularity in order to acquire strength. In building strength, you have to use strength, and day by day you will gradually find vigor and power added to the muscles that are used.

We have not given a great deal of attention in this publication to mental in-

fluence in building strength, and yet it represents a vast power. If you simply determine that you are going to be strong and you go to work in an enthusiastic manner—as would naturally follow when one strongly wills that such-and-such shall be so—you can depend upon building a physique of which you can justly be proud. If, however, you take the exercises in a lackadaisical manner, if you are but half convinced, and feel that but little can be accomplished in your particular case, then the strength you acquire will be but moderate in character. To build strength you must first of all be imbued with a mental determination to become strong. This too must not be an ordinary desire. You must allow it to become an important part of your individual mentality, you must be thoroughly impregnated with the idea of being strong, you must be determined that, come what will, you will become possessed of the strength that you so much desire, and if you will adopt the necessary methods, there is absolutely no excuse for failure.

Logically it would seem that, except in the case of heavy-weight lifting, as great a degree of muscular effort can be expended in duplicating the movements required by a certain feat as are necessary in the actual performance of the feat itself. It is possible, however, that one will more quickly lose interest while performing tensing exercises than while

actually lifting or pulling weights or other objects, and as a consequence may be unable to perform the exercises for as great a length of time.

The movements described below offer a simplified and convenient form of exercising, and as the object to be achieved is above all else the breaking down and destruction of wornout and useless muscular tissue, they may be said to achieve the desired end as effectively as any form of muscular exertion imaginable.

It cannot be too frequently repeated that the favorable results of all exercises are dependent first, last, and always, upon the ability of the blood stream to dispose of effete and waste matter, and to replace them with the healthy virile elements demanded to properly replace it. And as an ample supply of oxygen is essential to purifying the blood when it is pumped into the lungs by the heart, the necessity for the deepest possible breathing of the purest air one can get is self-evident.

The exercises that I am presenting in this issue will help very materially to bring about the desired results. They are simple and easily learned, and require no apparatus that cannot be found in an ordinary room. I can hardly repeat too often the necessity of continuing each exercise until one is thoroughly fatigued. Remember also the instructions previously given to breathe deeply and fully at different periods during each movement and between the various exercises.

Exercise Number 47 is very fully shown in the two reproductions of photographs Numbers 47 and 48. This movement vigorously uses the muscles of the spine, from the base of the neck to the sacral region. There is perhaps no better exercise for using all the muscles of this part of the body than illustrated in this movement. Recline on the back with the head on a pillow or cushion if exercising on the floor. If the exercise is taken on the bed, a cushion or pillow is not needed. You will note that the knees are bent considerably and the feet placed two or three feet apart. Now while in this position raise the body high from the floor, allowing the weight to rest on the feet and head. Continue to lower and raise

the body until there is a decided feeling of fatigue induced by the exercise. A variation of this same movement can be taken by rolling backwards and forwards on the head. As the head rolls backward the central portion of the body should be raised upward as much as possible.

Exercise Number 49 is illustrated in the reproductions of two photographs, Numbers 49 and 51. Standing about three or four feet from the end of a table, rest the weight on one hand as shown in 49, with the arm bent. Now push upward until the arm is entirely straightened, as shown in photograph Number 51. Repeat the exercise until the muscles involved are thoroughly tired. After gaining considerable strength the body can be lowered until the face touches the hand each time the arm is bent. The same exercise can be taken with the position reversed, that is, with the left hand resting on table instead of the right.

Exercise Number 50 is not unlike a pose, though it requires more of an effort than one would gather from a brief glance at the illustration. Rest the weight on the left foot. Raise the right leg upward and backward at the same time, bringing the right hand backward. Balance body for a brief period, then change your position, resting the weight on the right foot and bringing left leg and left arm backward. Continue the exercise, changing from right to left leg until a feeling of fatigue results.

Exercise Number 52 is illustrated quite plainly in the reproductions of photographs Number 52 and 53. This is a very fine exercise for the abdominal region and to a certain extent assists in adding suppleness to the spinal column. Place the points of the toes on a chair or very low table, resting the hands on the floor as shown in illustration Number 52. Note that central portion of the body should be bent down as far as possible, and the back should be arched. Now from this position raise the central portion of the body up as high as possible, as shown in photograph Number 53. Repeat the exercise, bringing the central portions of the body downward and upward, until there is a decided feeling of fatigue.

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Colleges Developing a Race of Giants

By Sidney Cummings

COLLEGE STATISTICS PROVING THAT PHYSICAL CULTURE IS GRADUALLY INCREASING THE SIZE AND STRENGTH OF THE STUDENTS

It is gratifying to note that recent reports from institutions devoted to the higher branches of learning indicate that the recently developed enthusiasm for building superior vigor has resulted in a decided increase in the size and strength of the attending students. It furnishes proof in a very emphatic manner, of what could be accomplished if these young men were trained in earlier years. In other words, we might easily develop a race of physical and mental giants, if the same attention were given to scientific body culture as is now devoted to various studies of far less importance. The data furnished in this article should be read with deep interest by every physical culturist.—Bernarr Macfadden.

THE authorities of those educational institutions of the United States in which physical culture forms a part of the regular curriculum have, within the past few years, been collecting statistics relative to the effect of athletics on the bodily development of the students. The conclusions to be drawn from these statistics are as gratifying as they are startling. Among other things, they prove that the coming race of young people of both sexes, who have been so fortunate as to have brains and bodies educated at one and the same time, are taller, heavier and better developed in general than were their predecessors of only five years ago. This may be hard to believe, but it is true nevertheless. Fig-



Photograph by Pictorial News Co.

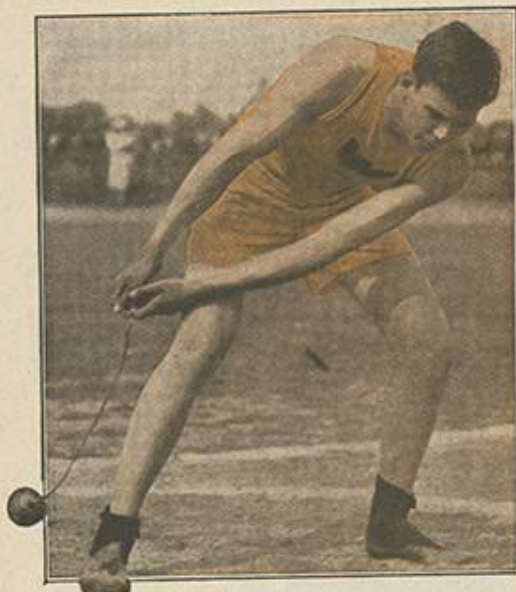
E. T. Cooke, Cornell, a splendidly proportioned youth whose specialty is pole vaulting.

ures—especially those gathered by college officials—do not lie. It is on the basis of such figures that the statement just made is founded.

The matter has been tersely summed up by Dr. Born, the medical director of Yale University in this fashion:

“Thanks to physical culture in the colleges and universities, the male American citizen of the future, in many instances, at least, promises to be a well developed giant, while his sister or sweetheart will be a sturdy lassie who will make a fit wife, mother and helpmate for him.”

Yale has been one of the leaders in this comparatively new idea of getting and recording statistics of the bodily development of students. Co-educational and



Photograph by Pictorial News Co.

Lee Talbott, celebrated for his prowess as a hammer-thrower.

some women's colleges have followed suit, as have Princeton, Harvard and Cornell. In all cases, the results have been the same—a distinct improvement in the physical make-up of the students wherever athletics have been properly taught and consistently practiced. But we shall only call on some of the Yale figures in connection with this article because they will answer all illustrative purposes and, besides, space limitations must be respected.

The figures which follow have been furnished by Dr. Born. They show the comparative measurements for the years 1903 and 1908 of five hundred men who were selected by lot from the college crews, the baseball and football teams, the track men and the student athletic body in general. The story told by the statistics is a remarkable one.

	MEASUREMENTS TAKEN IN 1903.	MEASUREMENTS TAKEN IN 1908.
Height.....	68.4 inches	69.9 inches
Weight.....	149 pounds	170.5 pounds
Lung capacity	272 cub. in.	314 cub. in.
Shoulders....	16.5 inches	17.0 inches
Neck.....	14.1 "	15.0 "
Chest.....	35.0 "	38.3 "
Inspiration...	37.3 "	40.1 "
Waist.....	29.7 "	31.6 "
Biceps.....	13.0 "	13.1 "
Forearm.....	10.6 "	11.2 "
Right Thigh..	21.0 "	22.9 "
Right Calf....	14.2 "	14.3 "

This collection of figures shows that, thanks to physical culture methods, the college man of to-day is an average one and a half inches taller than was his prototype of five years ago. More than that, the college physical directors assure us that he is still growing and that they look for the average six-foot or six-foot-two-inches man, in the not far distant future. Furthermore, our collegian is twenty-seven pounds heavier than his predecessor of 1903 and we are told that this increase represents solid flesh and muscle. The other physical advantages of the modern youth are proportionately increased.

It is hardly necessary to analyze the meaning of the figures given except in one or two instances. Thus it will be seen that the average height of the Yale athlete is rather more than five feet nine and one-half inches, which is that of a fairly tall man. Now height alone does not necessarily imply athletic ability or



Photograph by Pictorial News Co.

M. F. Horr, of Syracuse University, a noted weight-thrower.



Photograph by Pictorial News Co.

Ralph Rose, University of Michigan, a young giant, who is a wonderful weight-thrower.

even ordinary good health. But when the other measurements are in due proportion to the height, and when too, such measurements are of a constantly increasing nature, it shows that the promoting causes of the growth are of a beneficial nature. Growth of the body in the young—that is, normal growth—is due to normal assimilation of nutrients. An increase of stature within a given period suggests that the diet and conditions which surround the young man or woman are of such a nature as conduce to assimilation and hence to growth. So that, in a sense, we may judge of the correctness or incorrectness of the daily régime of the growing citizen by his actual or promised stature.

This being so, it follows that the physical culture methods which now obtain in practically all our large schools and colleges are in line with common sense and the dictates of Nature. And what is true of the school-boy or college "man" in this connection, is equally true of the

full-grown man and woman who adopts physical culture principles in their daily conduct and existence. There is no doubt whatever that if it were possible to follow the example of the college officials, and obtain statistics having to do with private individuals who live the physical culture life, we should find in the latter case as many striking illustrations of the advantages of such a life as have the physical directors.

Let the reader turn for a moment to the figures given and note the increased lung capacity of the Yale athletes. As will be seen, the collegian of 1908 had seventy-two more inches of such capacity than had his confrère of 1903. Now, "air is food" in more sense than one. Anything which increases one's power to inhale an additional quantity of the atmosphere makes for strength and health. We will not attempt to give the physiological reasons for this, especially as the story has been repeatedly told in the pages of this magazine, but the fact re-



Photograph by Pictorial News Co.

R. W. Ramadell, University of Texas, a giant sprinter who holds several records.

mains. And with the increase of the oxygen-supply to the blood, there is an added burning-up of waste and poisonous material, a consequently larger quantity of pure blood available for tissue building and a re-invigorating of the system which makes effort pleasant and fatigue comparatively unknown.

But while the most striking results in the way indicated have been brought about within recent years, the process of bodily development has been going on ever since our college authorities realized that sound minds were only possible when lodged in sound bodies. It will be recalled that physical culture as we now know it, is a science of somewhat recent birth. Anyhow, its general recognition by the colleges hardly dates back more than a dozen or fifteen years. After it had been on trial a little time at the colleges, it was suggested that a sort of physical census of about twenty thousand students should be made and the results compared as far as possible with records dating back for forty years or so. Many of these records were supplied by the War Department. The idea met with approval and in 1898 the census was



Photograph by Pictorial News Co.

John Garrels, Chicago University, an all-round athlete of international repute.

duly taken. It proved conclusively that physical training such as was then in vogue in the colleges, was having a marked effect on the youth of this country. During the period of forty years, there had been an average increase of three pounds in weight and an inch in height. But this was not all. In some of the big colleges of the East, the average height-increase of the freshman classes was no less than two inches over the stature of their fathers. The younger generation was feeling the effect of physical culture to a marked degree.

A side issue of physical culture and the collegian is, that, public opinion to the contrary, the college-bred young man of to-day is distinguished by the scope and vitality of his brain. One of the Yale professors through whose kindness the writer obtained some of the material for this article,

had this to say on the subject:

"It is unfortunate that an unwise press has taught the unthinking public to look upon the college lad who has a liking for athletics with distrust and even dislike. On the contrary, he should be encouraged in his love for out-door and in-

rigorous pursuits, because without the health which these yield him, he will hardly be fitted to endure the strenuous business-life of to-day. But apart from that, it may be news to some if I tell them that the men who work hardest in class or at recitation are those who work the hardest on the track, the shell or the field. It is hardly too much to declare that athletic supremacy outside the college, means distinction within it. When the athlete gets out into the world, he usually 'makes good.' The qualities that

will bear me out in my beliefs that the athlete is rarely if ever immoral. Morality and work on field or in gymnasium seem to go hand in hand."

The speaker gave the names of a number of men occupying prominent positions in public and professional life who during their college days, had distinguished themselves on the athletic field. He added that the last batch of "honor" men at Yale included several athletes.



A striking photograph of W. R. Dray, Yale's great pole-vault star, in the act of clearing the bar after a record breaking vault. Dray is a large man for a pole-vaulter

stood him in good stead on the river or between the goals of the football field, are of service to him when it comes to playing the larger game of life. Because of this, I am more than glad to observe through the medium of the statistics furnished by Dr. Born, that athletics enter so largely into the life of our boys as they do. I speak from the viewpoint of the Faculty, be it remembered, and not from that of the physical director. If I had my way, I would let athletics have a larger place in college life than they even now have—because of the effect for good on the mental industry of those who practice them. And I think that my colleagues

The physical statistics of women's college athletes have not been made public for the last year, but it is stated on good authority that they are in line with these already given. This much is known, that at Vassar and Smith colleges, the averages in heights of the girl students was five feet, seven inches; weight, 125 pounds; bust, from 28 to 36 inches; waist, 24 inches, and neck, 13 inches, all of which are improvements on old standards. It is gratifying to note that, judging by these figures, the day of the nauseating "wasp-waist" seems to have departed. Once upon a time a "young lady" was supposed to compress her abdominal organs into a space of 18 inches or so. But as tight lacing made physical effort impossible, and as

Photograph by the Pictorial News Company, New York





Photograph by Pictorial News Co.

A. B. Plaw, University of California, one of America's greatest hammer and weight throwers.

too, a healthy sentiment favored the growth of athletics among college girls, the corset, if not absolutely banished was at least, no longer a thing of torture. Indeed, there are anti-corset societies in some of the women's colleges.

The average increase in height on the part of college girls as against that of their mothers is said to be about three quarters of an inch. But they are much hardier than the preceding generation. Athletics form an integral portion of the career of every girl collegian of to-day and there is no doubt whatever but that coming Americans will benefit thereby.

Some examples of the magnificent specimens of young manhood which physical culture has produced at our colleges, include: Kreuger, of Swarthmore; Bangs, of Harvard; Pew, of Cornell; Little, of Harvard; Palmer, of Dartmouth; Horr, of Syracuse; Baker, of Cornell; Heath, of Michigan; Folwell, of Pennsylvania; Talcott, of Princeton; Sherman, of Dartmouth; Dray, Campbell, Nelson and Gilbert, of Yale; Pope, of Harvard; J. R. DeWitt, of Princeton; Osteff, of Wisconsin; Horton, of Leland Stanford University; and other famous athletes whose portraits are shown herewith.

The majority, of the foregoing are jumpers or hammer throwing men. It need hardly be added that most of the members of the college football teams are young giants in stature. Indeed, the football player is in the mind of the public, the typical college youth in point of stature. Which goes to show that the people in general are beginning to look upon the college as a body as well as a brain developer. And in this, judging by the figures quoted, they are right.

Publishers' Note

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Monograph, Copyright by Underwood & Underwood, N. Y.

Nipa-Visayan house on stilts, at Jaro, Philippine Islands.

Houses Built on Stilts

By Marie J. Blakely

THE HYGIENIC QUALITIES AND GENERAL ADVANTAGES OF HOUSES BUILT IN THIS PECULIAR MANNER

I hardly think that the houses described in this article would be habitable if the climate was such as experienced in Canada and in the Northern United States. Unquestionably, however, in hot weather or in countries where wild animals and venomous reptiles abound, such places of abode could be highly recommended.—Bernarr Macfadden.

NOT so long since a communication appeared in the *London Times* from an ex-member of the British Consular service, in which he told of a "house on stilts" which had been built and occupied by him at Sierra Leone, on the West Coast of Africa. The territory in question is also known as "The White Man's Grave," on account of its unhealthy character, and the large per-

centage of fatalities which take place among European residents. Lions and other dangerous beasts abound there, insects and reptiles menace one's comfort and life by day and night, and the fevers are various and virulent.

But the *Times* correspondent asserts that he spent two years in the country in comparative comfort and with no attack of disease, thanks to his house, which was



Stereograph, Copyright 1909, by Underwood & Underwood, N. Y.

A family residence of the Goajizos Tribe, Lake Maracaibo, Venezuela.

perched on steel stilts about forty feet in length. These stilts, four in number, were hollow, and braced together with cross-shaped girders, converging somewhat at their upper ends, where they supported a stout platform thirty feet square, on which a one-story bungalow was built, this being of wood. Access to and from the house was by means of a rope ladder which was drawn up at night. The kitchen and servants' quarters were on the ground below.

The ex-consul says that of an evening, the miasmatic mists and the clouds of tormenting insects could be seen in clouds below, rarely if ever, reaching the level of the bungalow.

The plan of building houses in trees or on stilts is by no means a new one, having been used in certain parts of the world since these parts became known to civilization. Well finished examples are

to be found in certain parts of Assam, in Northern India, lashed to the top of lofty trees. If a gale strikes the forests, the houses swing and sway in a fashion that would inevitably produce "sea-sickness" in the case of the average white man, but which does not seem to effect the tenants in the slightest, so we are told.

These houses are built for the same purpose as was that of the British consul, viz., to secure immunity from disease and dangerous animals. The tigers in the part of Assam in question are especially fierce; man-eaters abound among them. The insects are scarcely less deadly; also the natives aver that their elevated homes enable them to "eatair" by which they mean that they can secure that pure atmos-

phere which is not obtainable in that hot foetid jungle below. Evidently the Assamese are physical culturists by instinct—at least in the matter of ventilation.

On the North East coast of New Guinea, or Papua, as it is better known, houses on trees are common. These again are built to "keep the blood clean" as the savages put it—in other words, to secure health. Also they are used as watch-towers to detect the approach of shoals of fish or a fleet of hostile war canoes. In Papua, too, almost all the village houses are built on stilts, twelve to twenty feet in height. Most of these houses are inhabited on a community plan, and as such, are pretty big structures, some of them being 250 feet in length. The shady space beneath the buildings is used as a playground for the children and a lounging place for the men

and women. In times of war, the ladders are drawn up, and the houses become rough but serviceable fortresses.

The natives of some parts of the Himalayas build houses in trees for the alleged curious reason that "the devil cannot climb a tree trunk." The writer is not in a position to contradict or confirm the literal nature of this statement; but the truth probably is, that the "devil" in this instance probably means fevers and flying noxious insects. Anyhow such houses are the rule in the land in question, and missionaries tell us that the natives thereabout are broad-shouldered, healthy and singularly free from pulmonary affections. The youngsters are tethered by a piece of the liana, or forest creeper, to the platform of the house so that if they fall "overboard" they will not break their necks by descending to the ground below.

In the Phillipines, homes on stilts are common, especially by the seashore or lakeside. In such cases their purpose is in some ways different from their prototypes in other lands. The advantage of having plenty of ventilation is recognized by the builders, but in addition, the roofs and projecting platforms form convenient drying places for fish, and an enemy is also at a decided disadvantage when attacking from below.

The pre-historic lake-dwellers of Switzerland evidently elevated their homes for the self same reasons as do the members of the tribe of Goojizos Indians of Venezuela to-day. In the case of the remains of these ancient dwellings on stilts which extended far out into the lake over which they were built there are still plenty of indications that fishing was the chief industry and fighting the main recreation of their tenants. Bone fishhooks have been found in

abundance, and in some of the stilts that are yet standing are imbedded the flint arrow-heads discharged by hostile hands.

It is hardly likely that houses of the type under discussion will ever become general in civilized lands. Still, as a hygienic novelty they offer certain advantages over the average summer bungalow. They would certainly afford liberal ventilation, and the writer can imagine an arrangement by which air might be admitted from below by means of a grating in the floor, thus insuring an all around current of oxygen.

A friend of the writer who spent last summer on the islands of a lake in a certain part of Canada wrote that "The land was Paradise inhabited by the spawn of Satan." He alluded to the mosquitoes and black flies. On one occasion he went to bed wearing thick clothing, leather gaiters, long gauntlets of the same material, and hat with a head-veil. Nevertheless, he was bitten from head to foot, and in the morning his right forearm alone showing seventy-nine stings from the pests. And he added in his letter, "what made the situation more exasperating was, that in the clear moonlight



Stereograph, Copyright by Underwood & Underwood, N. Y.

Himalayan Tree-top House.



Stereograph. Copyright by Underwood & Underwood, N. Y.

A Garro residence in Assam, East Indies.

I could see that the clouds of the little imps only extended some ten feet or so up; the treetops above my head being free of them." Truly a most aggravating situation!

Here was a case in which the bungalow on stilts would have been a decided blessing. In any event, physical culturists who are camping out, as well as hunters, surveyors, or explorers might do worse than take a leaf from out the book of the savage tribes alluded to. It ought to be an easy matter to construct a portable hut of the type in question, together with stilts of the "take-down" order that could be rigged in fifteen minutes or so.

Perhaps the same principle could be applied to dwellings for tuberculosis patients to whom air of the purest and that in abundance offers the only hope of physical salvation. Who knows? Stranger things than that have taken place in connection with the adoption of physical culture methods for the cure of the sick. It wasn't so many years ago that the man or woman who was ill with consumption was kept in a hermetically sealed room and crammed with "rich" and "stimulating" food. Nowadays the conditions are exactly reversed, and air in abundance and food in moderation is the rule. Then why not domiciles on stilts for such sufferers which shall be surrounded by an atmosphere unpolluted by the emanations which are to be found at the earth's surface in what are apparently the most healthy of localities?

A New Zealander Commends Physical Culture.

TO THE EDITOR:

I have been first a casual reader of your magazine, then a regular one and now I am following out your theories, which are very beneficial. I only wish I had known of these laws of life many years ago and my life would not have been spent in really what I call failure. Physical culture is doing for me what no other hobby, fad (whatever you like to call it), can do. It enables me to get through my work with ease as well as with credit to myself. Other books I have read do not extend so largely its practice. In the mornings I usually run a couple of miles or more. Dinner hour I always exercise, which benefits me more than a meal of meat and white bread. In the evening whether I go out for recreation or not,

I always try to get in at least another run and exercise. All your magazines and books I have to buy at a much higher rate than your published price, but of course think they are worth it. They are lent to friends to induce them to take up natural living. Although never very robust I have been able to cycle easily 140 miles in about 11½ hours, through careful dieting and exercise. One day I hope to visit your Sanatorium and anticipate having a real good time. Should I ever come across a Macfaddenite I should like so much to exchange thoughts and opinions.

W. O. CARBOR.

St. Elmo, Worcester street,
Christchurch, N. Z.

Strength-Building Foods

By Bernarr Macfadden

A VISIT TO A FACTORY WHERE POPULAR HEALTH-BUILDING FOODS OF INTERNATIONAL REPUTE ARE MANUFACTURED

MANY inquiries have been and are received by us with reference to the various foods that are advertised so extensively throughout the country. In the past, we have answered these queries to the best of our ability, though the source of our information was not first-hand. To a large extent we were compelled to secure our information from the literature issued by the proprietors of the various foods or from other sources that in some instances were unreliable.

For some time I have desired to learn personally more of the food constituents and of the manufacturing methods used by the makers of these popular foods. I finally decided to visit the various food factories for the benefit of our family of nearly a half million readers. As I am now a resident of Battle Creek, Michigan, I naturally visited the factory which was nearest at hand.

As my readers well know, Battle Creek is famous for its food factories. A few years ago there were in Battle Creek forty or fifty companies selling foods, or at least selling stock. Many in the city with a few dollars to invest were searching for an opportunity to invest in a food company. Their desire was quite fully satisfied,

as one can well imagine. They invested to their heart's content. Ninety-five per cent. of these companies never advanced beyond the stock-selling age, and there was weeping and wailing and gnashing of teeth on the part of the investors. Their vision of riches to be secured from the manufacture and sale of prepared foods was never realized.

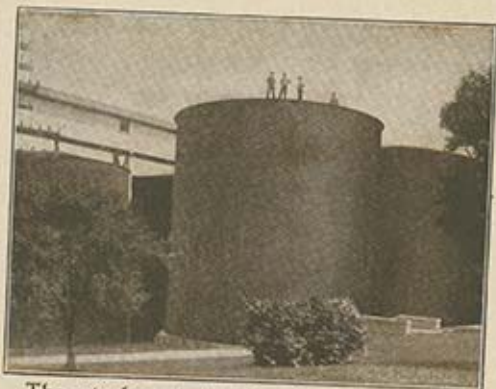
To a very large extent this remarkable interest in the business of making and selling foods was aroused by the wonderful success attained by Mr. C. W. Post. It was his genius that built up the great business now known as the Postum Cereal Company, Ltd. This company,

together with its employees, occupies a part of the city of Battle Creek known as Postumville, and this huge enterprise is a remarkable exemplification of what can be accomplished through the efforts of one strong-minded, far-seeing, persistent man.

When Mr. Post came to Battle Creek, he was an invalid. His life purposes were devoted to the one object of regaining his health. He tried the methods of various skilled physicians, and finally sought relief in a mammoth institution in this city which has been devoted to the healing of the sick



C. W. Post, the founder of the mammoth enterprise, the Postum Cereal Co., a multimillionaire whose wealth is due entirely to his own genius.



The steel grain tanks where the grain is stored before being made into Postum products.

for nearly half a century. Their treatment utterly failed to effect the desired results; he was removed from the institution and he then determined to depend upon his own resources. He began to do some experimenting on his own account, and as the result of his efforts he found health and strength of a high degree. His long continued studies of dietetics and the chemistry of food resulted in discoveries that he considered of very great value. He finally concluded to give to the public the benefit of his investigations.

In the "little white barn" located in the central portion of the land now occupied by his mammoth factories, he began the manufacture of the food products which are now so well known throughout the civilized world. His own hard struggle for health had developed the determination and strength of character necessary to launch an enterprise of this nature.

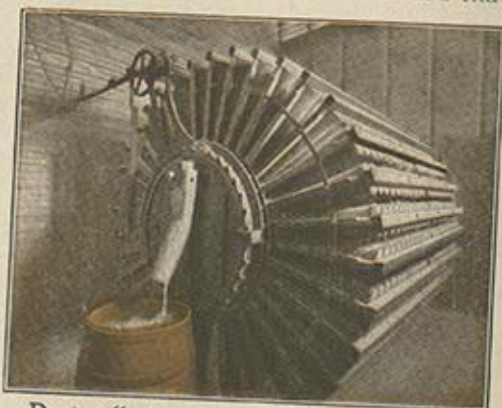
His products proved to be popular from the start, but he was not satisfied with a small business. He noticed the ill effects of coffee and improper food on many people and realized the need,

everywhere, for a table beverage free from the caffeine in coffee, and wholesome, nourishing, easily digested foods. He was able to look into the future and to grasp the tremendous possibilities that were before him as a business man, and in 1895 he began the manufacture and advertising of Postum, and about three years later, Grape-Nuts.

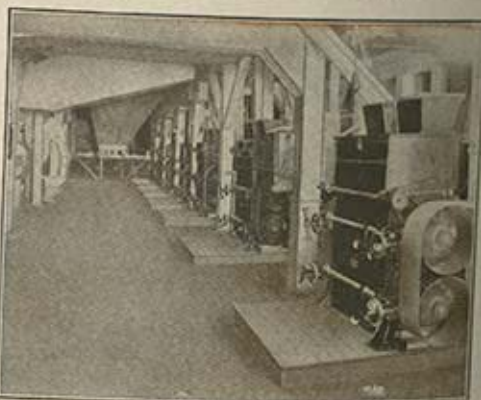
His business grew, and fortunately he was able to grow with it. Success is frequently dangerous and turns the head of many men, but Mr. Post's mentality proved to be of the right calibre. Post is a practical man as well as a genius. He has the imagination of a genius with the reasoning mind of a trained business man.

I had heard that there was chicory in

Postum, that Grape-Nuts food was made of old dry bread crumbs. Like all successful men he has been criticized and has made enemies, but enemies are usually prejudiced and they habitually avoid the truth. There is no chicory in Postum; there is no coffee in Postum. There is, in fact, no harmful substance of any kind in this product. It is made of whole wheat, including the bran



Dust collector, a machine that thoroughly cleans the grain before it is ground into flour from which Grape-Nuts is made.



Flour Milling Room. Here is where the grain is ground into flour.

and a small percentage of molasses. The wheat is roasted just as you would roast coffee; then the bran is moistened with the molasses and steam, and roasted separately. After the two parts of the wheat have been roasted, they are ground and skillfully blended in the exact proportion to form "Postum." That's all there is in Postum.

A cup of Postum properly made, has the color, and a flavor so similar to mild, high-grade coffee that it often deceives the most confirmed coffee drinker. It provides a hot drink which is at the same time a food, and unquestionably Postum has been the means of relieving thousands of sufferers from various ailments caused by coffee, through furnishing them with this wholesome food-beverage. If you have never tried Postum, I advise you to taste it. I frequently use it when I desire a hot drink, and it is always pleasing and satisfying. But it is only fair to the preparation that it be made according to directions on the package. Weak Postum is unpalatable. It should be *thoroughly boiled* before serving.

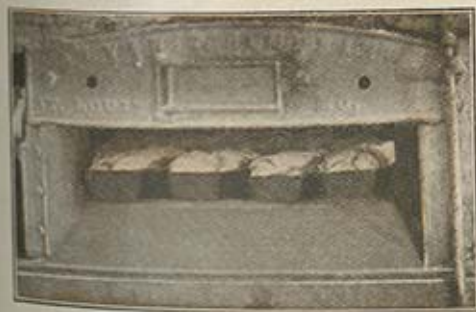
Grape-Nuts is also one of the most popular of Mr. Post's products. It is sold



Grape-Nuts Loaf Machine. The dough is cut into exact size and delivered by this device into the baking pan.

warm temperature until every grain sprouts. It is then dried, cleaned, the sprouts breaking from the grain in the process, and then ground into flour, after which it is ready for mixing to make the dough from which Grape-Nuts is ultimately made.

Grape-Nuts was so named because of its rich, sweet, nutty flavor. No nuts are used in its manufacture. It is made solely of the products mentioned with the addition of yeast and salt. The wheat is ground into flour, the only part that is removed being the exterior covering, which is composed exclusively of the woody fibre. The germ and all the nourishing elements under the bran are retained. This flour is then mixed with the flour made from the malted barley, and



Inside one of the ovens, where the huge ten-pound loaves of Grape-Nuts are baked.



One of the Dry Kiln Rooms in which Grape-Nuts receive their second baking.

everywhere, and is a food that well deserves its popularity. It contains all the nourishing elements of wheat and in addition contains a considerable quantity of malted barley, which materially adds to its flavor, digestibility and nourishing qualities. For those who do not understand the malting process, I would say that the barley is moistened and allowed to remain at a comparatively



One of the ten-pound loaves of Grape-Nuts after first baking.

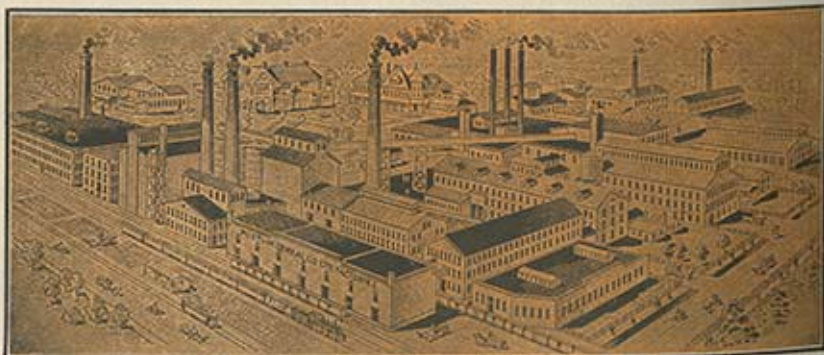
with the aid of yeast is made into a dough. In this mammoth bakery, all the work is done by machinery. The flour is mixed, the dough is kneaded, molded into loaves and cooked in the ovens without touching human hands. It comes out of the oven in huge brown loaves, weighing about ten pounds. One of these loaves was broken in two for my inspection. I broke off a piece of this luscious looking bread and it tasted as good as it looked. Now this bread is cut by a machine into huge slices, and these slices are again baked at a lower temperature until every particle of moisture has been removed, and the food is almost rock hard. The product is now ready for the machine which reduces it to crisp granules, its marketable form, after which it is placed in packages and made ready for shipment, all of this process being accomplished by machinery.

Post Toasties is still another of Mr. Post's products that has jumped into great popularity within a very short period. This food is made from corn. The hull and the germ of the corn are removed. It is cooked by steam and after-

wards dried. It is then rolled into flakes, and as it comes from the huge rolls it is mechanically carried through the ovens and is toasted to a crisp, golden "brown." The name "Toasties" is very appropriate and by merely warming it in any home oven the food has an appetizing crispness and a splendid flavor.

The products of the Postum Company richly deserve the favor with which they have been received in all parts of the world. The company has no secrets in its factory. Guides are employed for the purpose of showing and explaining everything. Visitors are always welcomed. The management apparently wants every body to know just exactly how their foods are manufactured, and are willing that every detail should be known.

Wheat, barley and corn form the principal basis of their various products. All of these grains are rich in nourishment and a person *could* live upon any one of them for an unlimited period. Every care is taken to retain the flavor and nourishing elements of these various food products, and as a result they please and benefit people all over the world.



View of the huge plant where the Postum products are manufactured.

Two Recent Medical Outrages

By Arlington Wells

THE FAR-FETCHED CONCLUSIONS OF SO-CALLED MEDICAL SCIENTISTS ARE WORKING GROSS INJUSTICE TO THE INNOCENT

The perusal of this article would incline one to believe that we are but little removed from the period when witches were burned at the stake. How such gross injustice can be allowed in a country that is supposed to be free and enlightened is beyond my comprehension. A homely old saw says that if a calf is given plenty of rope it will soon hang itself, and I am inclined to think that unless the better element of the medical profession soon sever all connection with the benighted and fanatical members of their profession who are guilty of the conduct described in this article, their fate will be similar to the animal described in the old saying we have quoted.—Bernarr Macfadden.

THE history of the crimes perpetrated by medical "science" against the health and lives of the public will never be written, for the reason that the laws as they now stand, serve to shield the criminals involved, instead of exposing and punishing them. One hears nothing of the victims of malpractice or of legalized murder except in the rarest of instances; and even if there is a resort to the courts by the maltreated or by the relatives of the slaughtered one, the "profession" rallies to the aid of the accused with an unanimity that chokes justice and is worthy of a better cause.

But in some instances the affront against the life, liberty and happiness of the layman or lay-woman is so blatant and brazen as to attract general attention and enlist the sympathy of the honest physician. This article has to do

with two of such cases which recently occurred. These cases not only prove the power of committing outrages which is vested in the average physician or

Boards of Health, but show in an illuminating fashion their gross ignorance of the very theories on which their tyrannous rule is based. Here is the first case:

Mary Mallon is thirty years of age, and a singularly fine specimen of the young womanhood of the land of her birth, which is Ireland. She has a clear, healthy complexion, regular features, bright eyes, and white teeth, is about five feet, five inches in height, and holds herself as a woman does who enjoys robust health. In March, 1907, she was cook in the family of J. Coleman Drayton, New York City. The Draytons are wealthy people who have a home in which is to be found, among other things, the latest



Mary Mallon, the alleged "typhoid breeder" who is said to be a victim of the New York Board of Health.

inventions of sanitary science. The butler and two maids of the Drayton household fell ill of typhoid fever in June, 1907. There was no apparent reason why they should have contracted the malady, and the attendant doctors were puzzled. But they had to show a reason for their fees, and this reason took the form of Mary Mallon. Inquiries on their part developed the fact that during her employment with another family, there had been a case of typhoid fever, so the wise men came to the conclusion that Miss Mallon was responsible for the epidemic, and they rushed her off to the Parker Willard Hospital. There the Board of Health "experts" considered the case, and they came to the conclusion—don't laugh, readers—that Miss Mallon was a "breeder of typhoid germs" that they found such germs in her gall-bladder, and that as fast as these were carried away, others took their place. In fact, she was a sort of continuous performance bacillus-propagator who seemed to flourish on her germ-spreading propensities, but was a menace to those with whom she came in contact!

It was true that, as the "scientists" reluctantly admitted, medical science had nothing on record resembling her case, and that in consequence, they had nothing with which to substantiate their beliefs, but that did not matter. Mary, according to them was a germ factory, and that was all there was to it. So *without process of law* she was banished to North Brother's Island in the East River, New York City, her sole companion being a pet dog. Three times daily a keeper brought her food and retreated hastily. She was sent to her Island prison in July, 1907, and has been there ever since. Recently some people of wealth in the metropolis have become interested in the case, and have made an attempt to free her through the Courts.

Her case now promises not only to develop into a battle of bacteriologists—with the Board of Health experts ranged against equally learned private experts—but it is also expected to demonstrate just how far the Board of Health powers go—whether this body has the legal right to banish a human being to solitary

confinement in the absence of a court commitment.

It is also expected to prove whether Mary Mallon is or is not a constant menace to the community in the spread of typhoid, as the Health Board declares.

It was in an effort to demonstrate the truth of Miss Mallon's contention that she has "not a speck of typhoid," that she was recently brought before Justice Giegerich in the Supreme Court on a writ of habeas corpus granted to Attorney George Francis O'Neill, who seeks her release.

Miss Mallon spoke thus about her case:

"I never had typhoid in my life, and have always been healthy. Why should I be banished like a leper and compelled to live in solitary confinement with only a dog for companion? It is true three servants in a family where I was employed two years ago had typhoid, but what of it? It was the drinking water, not me, that caused the trouble. I worked in many other families before that, and none but one of them had typhoid.

"This contention that I am a perpetual menace in the spread of typhoid germs is not true. My own doctors say I have no typhoid germs. I am an innocent human being. I have committed no crime, and I am treated like an outcast—a criminal. It is unjust, outrageous, uncivilized. It seems incredible that in a Christian community a defenseless woman can be treated in this manner."

Now, as the readers of PHYSICAL CULTURE know, the germ theory of disease does not receive the unqualified endorsement of this publication. The medical schools hold that germs cause sickness, and in proof of the alleged truth thereof, they point to the fact that in the blood and tissues of a person suffering from a given disease there will always be found a germ or bacillus of a kind that is never associated with another malady. PHYSICAL CULTURE does not deny the existence of the bacilli, but it does assert that they are the *results* and not the *cause* of disease; that it is their function to feed or destroy the effete matter in the body due to disease and that hence, their work is of a beneficent instead of a harmful nature. However, and for the purpose of showing

how the sapient physicians who were responsible for the Mallon outrage are apparently ignorant of the first principles of their pet theory, we will temporarily accept that theory in this connection.

Typhoid fever is a filthy disease which prevails in all parts of the civilized world, and which is specially prevalent in localities where sanitary law is conspicuous by its absence. Like the bubonic plague, cholera, dysentery and small pox, the ravages of typhoid grow less with the increase of personal and dietetic cleanliness and the adoption of physical culture practices. According to medical text-books, typhoid is infectious and not contagious. The distinction between these two classes of maladies may be stated thus: Contagion can be transmitted by personal contact with the patient himself or objects that have been associated with him; infection comes from the taking into the living body, *via* the mouth or nostrils, the germs which cause the disease. Exponents of this theory agree, in that typhoid fever is spread only by the excreta of patients. This usually gets into the water supply of the community. Sometimes, but rarely, the dried excreta of the sick is blown by the wind or carried by flies on food; but this is only likely to happen in some army-camps or in places where ordinary sanitation is unknown. In any event, it is the excreta, and the excreta alone, that propagates the disease. Numberless authorities might be quoted as showing how that the "regulars" of all schools coincide in regard to the excreta, but one of such will perhaps suffice. George M. Sternberg, M.D., L.L.D., late Surgeon-General of the U. S. Army, in his work "Infection and Immunity," says, "The typhoid bacillus is contained in the excreta of the sick—such germs are not dangerous to a community if conveyed by flushing or otherwise to properly constructed sewers. But they may be capable of doing serious harm to other communities if the sewers empty into a stream, the waters of which are used for drinking purposes." Dr. Sternberg goes on to speak of the great epidemics of typhoid which have visited this country, and shows how that in every instance, the cause of the outbreak was traced to a

water supply contaminated by the excreta of a sufferer from the disease. He adds, "Sometimes typhoid fever is spread by means of infected dust containing living typhoid bacilli, such dust being the desiccated excreta of patients. But I have never known of infection taking place in this way outside of army camps."

There have been epidemics due, not to drinking water, but to milk supplied to cities. In all such cases, however, it has been found that water infected by typhoid excreta has been used either to dilute the milk or to wash the vessels containing it.

The bearing of the foregoing on the outrage has in all probability already occurred to the reader. The situations held by Mary Mallon were with families of wealth, in the homes of which toilet arrangements were in accordance with the latest sanitary science. Now even supposing that there was a basis of truth to the ridiculous theory that she "bred typhoid germs," how could she convey these germs to others amid the sanitary conditions that surrounded her? Her personal cleanliness never seems to have been questioned. There was never a ghost of an aspersion cast on her by her associates in regard to the acceptability of her person or her clothing. Yet, so the accusing physicians would have us believe—in spite of the specific statements of their text books—she had the knack of conveying typhoid infections to others in some mysterious fashion which isn't understood and can't be explained.

Furthermore, be it observed, this woman who allegedly reeks with typhoid; who is a walking incubator of the bacilli of the disease and hence a menace to all those who come in contact with her, enjoys good health, has clear eyes and a wholesome complexion. So then, your blood and tissues and organs may be chock-a-block with disease germs, and yet, you may not have a trace of disease! Oh excellent, learned doctors! Oh potent grave and reverent humbugs. Oh self-contradictory charlatans! Where does the germ theory in general and the germ theory as applied to this unfortunate woman in particular, come in, in this connection? You aver that certain

germs are invariably associated with certain diseases and that the presence of the former will assuredly cause the occurrence of the latter. How does this stated belief of yours jibe with the so-called "facts" that you assert you have discovered in the case of Miss Mallon? Shame on you! Such "science" is condemned out of the utterances of your illogical and irresponsible mouths.

The writer was present in court when the victim was seeking to recover the liberty guaranteed her under the constitution, but from which she has been deprived by a fool medical theory. He can vouch for the truth of the statement which appeared in the newspapers the following day, to the effect, "that all the doctors present gave the woman a wide berth." And yet these are the men who assert that "typhoid infection is only made possible by the excreta of a patient." The cowardice and self-stultifying attitude of these men would have been laughable was it not lamentable as far as Mary Mallon and her uncomfortable plight was concerned.

Picture the fate of this poor creature, condemned to solitary confinement on a cluster of rocks for an indefinite period, perhaps for life. Her sole companion is a dog, and her sole hope that some day, the community will awake to the awful

injustice that is being done her, and insist on the restoration of her liberty and the society of her fellows. And for what crime is she thus relegated to a doom which one shudders to contemplate? The reply is "for no crime whatever." She is a victim of a weird medical whim

or theory, which hasn't the slenderest scientific foundation on which to rest; that is lacking in common sense as it is in precedent, and which, if it passes unchallenged, puts it into the power of every doctor or Board of Health to banish or imprison any victim of their ignorance or their spleen without process of law. These are facts which concern every citizen who values the rights and the freedom for which our forefathers fought and died. But these apparently count for naught in the presence of the belief of "regular" practitioners.

Now for the second illustration of medical "science" and the wrongs that it can inflict on the citizen at the behest of its exponents. John E. Early was once a soldier in the United States army. After serv-

ing his time, he got a job in a wood pulp mill at Canton, N. C. In the department in which he worked quantities of caustic potash were used for the purpose of reducing the wood to pulp. The potash in the form of dust, settled on the men, the majority of whom.



John E. Early, declared a leper, and isolated at Washington, D. C., and now admitted to never have exhibited the taint of leprosy.

including Early, suffered from inflammation of the face, hands and legs in consequence. Finally Early determined to go to his home at Washington, D. C., for treatment, although he was not nearly in such bad physical shape, as were some of his co-workers.

At Washington he put himself in the hands of a Doctor Stewart. We will say nothing unduly unkind about this "physician" but simply state that he couldn't apparently diagnose between caustic potash irritation and leprosy. So he reported to the Washington authorities that to the best of his belief, Early had leprosy; that bad was his best, later events proved. So the wise men of Washington took a piece of skin from off Early's body and said they found leprosy germs in it. On the strength of this, Early was isolated in a corner of the Eastern Branch Reservation at Washington and—proceeded to get well. The caustic potash inflammations disappeared. We beg the pardon of the Washington Esculapian—"the leprosy symptoms subsided." Anyhow, the spots that had so excited the fears of the intelligent Dr. Stewart and his fellow "scientists" were no more or nearly so. Then Dr. L. Duncan Bulkeley, of New York City, became interested in the case. Dr. Bulkeley appears to be a physician of the new and rational school, who possesses the common sense denied to so many of his colleagues. After several examinations of Early, he came to the conclusion that the leprosy theory was all tommyrot, and he notified the Washington authorities to that effect. But was Early released in consequence? Not a bit of it. He was still kept a close prisoner, absolutely isolated. From August, 1908, till December, he was kept in a tent and then moved to a little brick house on the reservation. "There was a wall around the house," said Early, who is now in New York, "and my wife lived in the house adjoining mine. Also there was a grating through which she passed some of my food. The Government attendants were terribly afraid of me. They would place my rations on the ground at some distance from me and then bolt.

But they let me raise chickens and eggs

and sell both in the city." Just a trifle inconsistent, don't you think?

In the meantime, Dr. Bulkeley was making unceasing efforts for Early's release. But it was not until July of this year that he was successful. Thereupon, the "leper" came on to New York.

Early is a well-built man of healthy appearance, who now shows only the slightest signs of the eruptions on his face and hands which so excited the alarm of the "scientists" of the capital.

Now—and this is the point of the story—leprosy has been declared to be non-contagious by a series of learned investigators both in Europe and this country. So firmly is this fact established among the New York health authorities, that a few years since, the Leper Hospital, on an island in the Lower Bay was closed and the patients allowed to go free. In Florida something of the same kind of thing has taken place, and what is more, the sufferers from the disease in that State have *all* been cured by intelligent application of physical culture principles.

Yet on the say-so of a Washington "general practitioner," the sapient Health Authorities of Washington get busy, ignore or are ignorant of the later findings of medical science and seize and sentence to solitary confinement, a reputable citizen who eventually proves that he had never been guilty of the "crime" charged against him. Let us hope that the courts will make the numskulls at the Capital pay dearly for their worse than blunder.

Let it be repeated that no man's life or liberty are safe as long as matters stand in the medical world as they now do. The two cases cited—show that the word of an M.D. or a collection of M.D.'s will be accepted by the law no matter how grossly it is opposed to ordinary sense or even the science for which it purports to speak. When a woman can be condemned to solitary imprisonment for life, or a man for an indeterminate lonely term on a reservation on the strength of a doctor's whimsical fancy or the exploded beliefs of a Health Board, it is time that the community awakes to a sense of the outrage that is being imposed upon it.

Polo, the King of Sports

By Arthur Inkersley

A STRENUOUS GAME AND ONE WHICH DEMANDS
GREAT ACTIVITY AND VIGOR AS WELL AS SKILL

Polo is mostly played by the wealthy, or at least by those who are able to maintain the equipment necessary to play the game, which includes at least one or more polo ponies. The time that is required for the necessary training is also an important factor. It would be difficult however, to find a game that is more interesting and exciting, and for those who are able to secure its benefits, it can be highly recommended.—Bernarr Macfadden.

THOUGH polo is by no means the oldest known sport of mankind, it certainly can boast of a highly respectable antiquity, for it was played in Persia about six hundred years before the birth of Christ. Nearly twenty-five centuries later, in 1870 A.D., it was introduced into Great Britain, where it is esteemed so highly that it is called "the king of sports."

matched teams are playing, there is "something doing" almost every moment. From a spectator's point of view polo possesses the great advantage over baseball, cricket and the many varieties of football, that it is easy to understand. Of course, as in all sports involving skill, there are many details of the play that are not fully appreciated, or even seen at all, by the untrained onlooker, but any



In the polo-field at Del Monte, California.

In the early game there were five men on a side, the fifth keeping near his goal and taking little part in the game. The ball was laid in the middle of the ground and at a signal both teams charged towards it from opposite sides of the field. This method was discarded as too dangerous and the fifth man was dropped as superfluous. The ball is "thrown in" by the umpire between the two teams which are lined up in the centre of the field and facing each other, every player watching "his man."

Polo may be described roughly as "hockey on horseback," or more accurately pony-back, for the animals used in the game may not exceed 14.2 hands in height. It is a very fast, brilliant and exciting sport, for, when strong and well

fairly intelligent person, especially if he has some acquaintance with other games, on seeing polo for the first time, can understand enough to become interested; for the object of the game is obvious and the play is all in the open.

At opposite ends of the field, in the centre of the goal-lines, are two posts, twenty-four feet apart and at least ten feet high, and the object of the players is to drive the ball between these posts. The game is scored by goals, each counting one point. Since there are only eight players and one or two umpires on the field, the ball is never hidden from view by a mass of squirming, writhing men, as happens so often in football, especially of the type known as inter-collegiate.

The implements of the game are simple. The ball is of willow or bamboo with wrist-straps. The average length

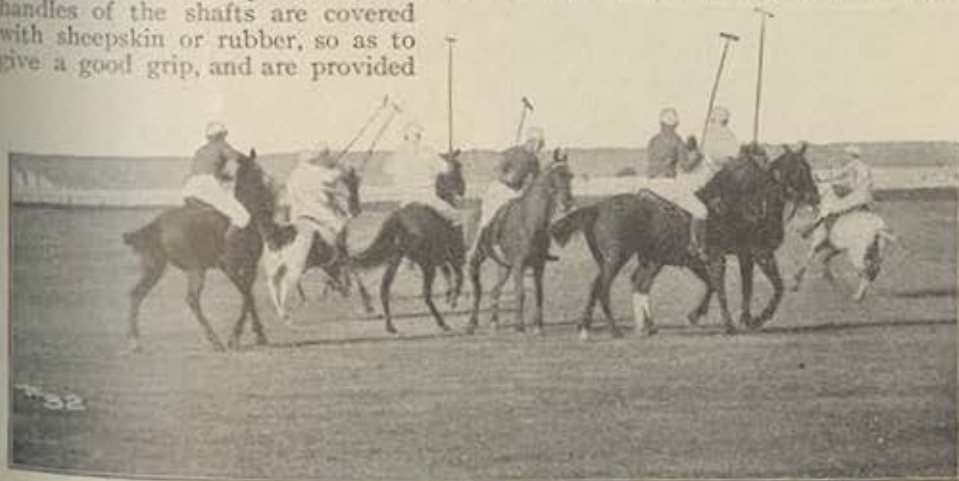


A team wheeling round.

root and is painted white. It weighs about four and one-half ounces and must not exceed three and one-quarter inches in diameter. The players wear riding breeches and "butcher" boots (generally brown), and have the sleeves of their shirts cut off above the elbows. To protect the head, stout pith helmets or caps lined with cork are worn. The sticks or mallets consist of a shaft of Malacca cane or white ground rattan, with a head about eight inches long and weighing about eight ounces. The head is made of beech, ash, hickory or bass-wood, and is either cigar-shaped or has a rectangular section. American poloists generally use the cigar-shaped head, which tends to lift the ball into the air; while British players prefer the square head. The handles of the shafts are covered with sheepskin or rubber, so as to give a good grip, and are provided

of a shaft is about fifty-two inches. The more supple the shaft, the harder blow it will strike, but a long, pliant shaft is more difficult to control than a short, stiff one, as it bends and twists too readily. Hindoos play with much more pliant shafts than Europeans or Americans and do wonderful execution with them. A leather glove is generally worn on the right hand.

A polo-field should be level and covered with pure grass-turf; clover being dangerous on account of its slipperiness. It should be so situated that the afternoon sun will fall across the field. The length from goal-line to goal-line should be about three hundred yards, with thirty yards or so of turf behind each goal; and the width should be about one hundred



Scrimmage for possession of the ball, after a throw-in.



A strong defensive player, well mounted.

and fifty yards; but may be somewhat smaller or larger. The sides of the field are marked by white boards; which help to keep the ball from going out of play. When it does so, it is thrown in by an umpire at the point where it went out.

The ponies are of many nationalities—English, Irish, Scotch, American, Australian, Egyptian, Arab, Argentine, etc., and noted players have tried them all. The most valuable quality of a polo-pony is his agility; he must be able to start, turn and gallop quickly. Though a reasonably fast pony is necessary, extraordinary speed is not essential. Courage is an important matter, for a pony must be plucky in meeting other ponies and must refuse to be bumped or shouldered out of the game. Hard hitting and rough riding are the features of modern polo and in these respects a strong, heavy man who can control big ponies has an advantage. The game often seems highly dangerous, but, though it involves some risks, both to

pony and rider, it is not so hazardous as it looks to the spectator. The ponies take very good care of themselves and certain rules of the play tend to reduce the danger. Accidents are generally caused by reckless beginners and are very infrequent among skillful players.

A player, in approaching another, must strike the ball on the off side of his pony, and he may not ride at a dangerous angle (technically "cross"), in front of an opponent. For his own safety he should not follow very close behind another player, especially if the latter is riding to back-hand the ball, for he is likely to slacken his speed and wheel as he strikes.

An ordinary polo pony costs about \$150.00, but, as soon as he begins to show form in the field, he is worth double that sum; while a pony with a reputation as a clever and handy mount will fetch from \$500.00 to \$1000.00. Rich men pay \$2500.00 for a nearly perfect pony. A few years ago a well-known young Eastern poloist paid \$20,000.00 for a stable of ponies that had been trained by W. S. Hobart, of Burlingame, San Mateo County, California.

In Great Britain a player usually has three ponies on the ground for a match; but the game as played in the United States is harder on the ponies, so that four are generally necessary. A match usually consists of six "periods" of ten minutes each, with short intervals for rest.

It need hardly be said that a polo-player must be an excellent rider; if he is not, he is a constant menace to himself and his fellow-players. Even the most skillful riders sometimes part company with their mounts; but, unless they are so unlucky as to fall heavily, they are up and on again in a moment. Besides being a fine horseman, a poloist must possess energy, coolness, resource, control of the ball, a head for the tactics of the game and unselfishness. Polo is played by a team and not by four individuals; combination between the players is of the greatest importance. Four fair players, who know the game and

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play to each other, will beat four brilliant poloists who are always looking out for opportunities to shine at the expense of their teammates. Though weight and physical strength enable a man to make hard hits, certainty of direction and accuracy of aim are more important than long driving. Any hit of fifty yards is enough, though many players hit from seventy to eighty yards pretty often.

A team consists of four players, known as number 1, number 2, number 3, and back, who plays behind the other three men. Numbers one and two are the forwards. Number one is the first forward and looks after the enemy's back, harassing him as much as possible, so as to break up the defence and open the way for his own teammates to score. Number one always works in conjunction with number two and has more chances of hitting goals than any player except number two. He must have fast ponies, his duties being to keep a little ahead of the enemy's back, so as to be between him and the play. Number two is the most envied place on a team, being the ideal position for a hard rider and a hard hitter; he has more chances of making fine runs and brilliant shots at goal than any one else. He also has the advantage that his mistakes are not likely to be serious, for the two steadiest men on the team, number three and back, are behind him. All his team mates pass the ball to number two, who must always be on the alert. Number two must have good command of the ball and must above all be a sure hitter; he must be in good physical trim and mounted on ponies in good condition. Having many chances to shine, he must be unselfish and pass the ball to number one or number three whenever the interests of the team demand it. Number three should be an all-round steady player, cool-headed and ready for plenty of hard work without much opportunity to earn applause. His main business is to block the enemy's number two, to assist his own back, and put the ball up to his own friends. The back should be a steady, trustworthy

player of long experience, and specially strong at back-hitting. Though he has a good deal of looking-on, he is charged with more responsibilities than any other player, being the last defence between the enemy and the goal. He should keep at a safe distance from players ahead of him and be careful to avoid "crossing" opponents who are entitled to an unobstructed course. He must be cool and keep his temper. His pony should be strong, quick and fast, as well as plucky to resist being ridden or bumped off.

Though polo was introduced from Great Britain into the United States, there are some differences in the game as played in the two countries, except in



A brilliant forward player on a fine pony.

California. British poloists play under

combination and unselfish play than the American game; while Americans like their



At full tilt after the ball.

the rules of the Hurlingham Club, of London and so do Californians. The chief difference (and it is a serious one), between American and British polo is that in the United States there is no restriction against "off-side" play. According to Hurlingham rules a player may not hit the ball or interfere in the game if he is "off-side," *i.e.*, if, at the moment the ball was struck last there was not at least one opponent between himself and the enemy's goal. According to American polo Association rules a player may take the ball under any circumstances short of riding dangerously to get it. British poloists say that their game requires more team-work,

own game best because it is more open and permits of more dash and individual brilliancy. The American game strengthens the attack and weakens the defense so that many more goals are scored than under British rules. The "hooking" of opponents' sticks is now allowable in both countries.

California is the centre of polo in the Western States, there being three fields in San Mateo County, as well as fields at Riverside, Los Angeles, Santa Barbara and Coronado Beach. The first tournament for the All-American Polo Trophy took place at Coronado this spring, between teams from Burlingame (San Mateo County), Riverside, Los Angeles, Bryn Mawr (Philadelphia), and the Ravelagh Club of London. The tro-



Everybody but the backs busy.

... was won for the first time by the Bur-
... team, which defeated Rave-
... in a most brilliant and exciting con-

test by the narrowest margin—five goals
to four. It is probable that one or more
English polo teams will visit California
next winter.



Both teams bunched in front of the goal.

Experience with a Nut and Fruit Diet

TO THE EDITOR:

The article, in a recent magazine, about Mr. Harry McCord, tempts me to write of my experience with the nut and fruit diet.

I am twenty-eight years of age and have been a vegetarian for thirteen years, and have never used tea, coffee, tobacco, or liquor in my life. From the time that I was fifteen until I was twenty-one I was a vegetarian simply from principle and knew nothing about the science of dietetics.

Seven years ago I began reading *PHYSICAL CULTURE* and changed my eating habits gradually, using whole wheat bread instead of white, and adopting the other methods advocated by the magazine writers. I had always been employed at sedentary work and had never paid much attention to exercise, and, while I was in better health and was more vigorous than the other clerks in the office, I did not enjoy the strenuous health I have since then discovered.

Six years ago I obtained employment where it was necessary to pass a physical examination and the physician, who examined me, told me that I was in fair health but that I was anemic. I didn't know how to explain this except on the ground of my diet, as I had always heard that vegetarians, generally, were anemic.

I immediately set to work to find out what vegetarian authorities thought about this and found that they agreed that protein food was the blood-building food and that a person sufficiently supplied with proteid would have a plentiful supply of blood and, therefore, would not be anemic. I then searched further and learned that the protein foods in the vegetarian list were nuts, eggs, milk, peas, beans and lentils. Now I had always eaten great quantities of eggs, milk, peas and beans but had never used nuts as a food.

My experience during the past six years has taught me that a person may use eggs, milk, peas and beans as his protein food and live on

it, but I am also convinced that such a person will not always be free from anemia while depending on such foods, and that he will not be so vigorous as though he had used man's natural proteid—nuts.

Four years ago I went to Physical Culture City, and from the students there, learned of the evil effects on the passions, caused by eating any kind of animal food, and since that time I have never eaten eggs, milk, or butter. I noticed that the students ate nuts and I began experimenting with this food. I thought it would take too much time if I had to break the shells myself, and I made the mistake of using shelled nuts.

When on the cooked diet I always ate two meals per day and continued on that plan after taking up the natural foods, but since going back to three meals I have gained nine pounds and think it the best plan on this diet. It seems that all of nuts and fruits are either assimilated, by or eliminated from, the system, and there is nothing to cling to the system and ferment as with vegetables; so there is not the same danger of over-eating.

My diet now is: Breakfast, two ounces of hazel-nut meat, soaked prunes, bananas, apples; Dinner: one ounce hazel-nuts, soaked unbleached Sultana raisins, bananas, apples; Supper: one ounce hazel-nuts, soaked prunes, soaked apricots, apples. The only change I ever make in this is that I frequently use either berries, peaches, oranges or some other acid fruit in place of apples.

My weight is 150 pounds, stripped; height, 5 feet, 9 inches.

I live ten miles from where I work and walk to and from work every day, winter and summer, this making a twenty-mile walk daily, in addition to my other exercises. I never wear a vest or overcoat and am in every way perfectly satisfied with the results obtained from my ideal diet.

JULIUS CORNELL.

Interesting Facts About All Kinds of Bread

SOME VALUABLE INFORMATION ABOUT MANY KINDS OF BREAD,
FROM THE PEN OF A CAREFUL STUDENT OF PHYSICAL CULTURE

By Maxwell Remington

The writer of the following contribution has been intensely interested in the Physical Culture movement for the past ten years. He is a splendid athlete and a fine specimen of the benefits of our theories. His views will undoubtedly prove to be of special interest to all those seeking accurate information about the genuine staff of life.—Bernarr Macfadden.

SUPPOSE for a moment that the expression, "the staff of life," had never been heard of, and that you chanced to originate it. And suppose further that you then went to a man—the average, civilized man of the present time—and asked him what food he considered most worthy of being called the "staff of life?" His first thought perhaps would be one of pleasure at the clever and pretty little figure of speech, and its significance when applied to food, and his next would be to answer, "Meat, of course!" Can any one suppose that the idea of bread would ever occur to him? For if there is one article of diet which to the conventional mind of to-day seems more important than all other foods combined, indeed, indispensable to health and strength, it is animal flesh.

The origin of cannibalism apart from the possible pressure of famine, was involved chiefly in the belief that the literally "blood-thirsty" warrior came into possession of the strength and courage of his enemy when he had eaten him. Certainly the continuation of the practice up to modern times has rested upon this supposition, which would also serve for its justification, at least in the mind of the cannibal. And even cannibals do not eat the fellow members of their own tribes. But of course no one of to-day ever harbors a superstition in his own mind. Still, there is actually no difference between the belief of the cannibal in the virtues of a diet of human flesh, and the present day faith of the white man in the exceptional strength-giving qualities of other animal flesh. It is a kindred superstition, based largely upon the notion that in some mysterious way the strength of the brute is assimilated in

the process of devouring and digesting his fibres and tissues. Otherwise why should meat be esteemed as so much more valuable for the building of strength than other high-proteid foods, containing substantially the same chemical ingredients, and in an organic form? To give him strength, a man will eat meat three or four times a day, if he can afford it. So firmly fixed is this conviction concerning the merits of beef, that if it were not for the strength of his worship for antiquity, and reverence for the sayings of his great, great grandfather, the flesh-fed man of to-day would laugh to scorn the notion of bread being considered the "staff of life!"

Yet there is a measure of justification in his attitude, not in regard to the superior value of meat, but in respect to the inferior character of that which we are now pleased to call bread. For that which was in the olden times regarded as the prop upon which man's very existence depended, and which was accordingly so named, was not the devitalized and emasculated white flour product of the modern table. The latter is one of the characteristic features of a civilization which cannot digest its breakfast without the aid of the corner drug store. And while many nations have thrived and do thrive upon a diet of little more than bread and water—*real bread*, sometimes supplemented by a few vegetables, yet it would be difficult for one to keep very much alive or to accomplish anything upon a diet of bolted white flour, even supplemented with the same few vegetables. Fortunately, however, there are still uncounted hosts of people upon this earth who are not so thoroughly perverted by what is miscalled civiliza-

tion that they have discarded all kinds of wholesome bread for the sake of the pale and anemic substitute of to-day.

There is one kind of bread furnished ready-made by Mother Nature, or at least all ready except the baking, namely the "bread-fruit," originally a native of the South Sea Islands, but now transplanted throughout the tropical regions of both hemispheres. It grows on a tree of moderate height, similar in shape to a foot-ball, and almost as large. The fruit is gathered for use just before ripening, when it is gorged with starchy matter. It may be prepared for use in many ways, and in its fresh condition is frequently baked entire, in hot embers; whereupon the interior may be scooped out, having a soft smooth consistency and a flavor not unlike the taste of potatoes boiled in milk. It combines well with fruits and other ingredients for puddings. In the tropical islands of the Pacific it occupies the position held by cereal in temperate latitudes. It is commonly preserved for use by cutting it into thin slices, which are dried in the sun. These dried slices may then be made into flour at any time, from which bread and biscuits may be prepared much the same as from any other flour, or the slices themselves may be baked and eaten without grinding. Its flavor is so pleasing and delicate that one never tires of it.

Many of the native Indian tribes of South America, especially in the interior of Brazil and Paraguay, live almost entirely upon another form of bread, which is not made from cereals of any kind, but from a vegetable. It is made from the pulpy root of the manioc plant, often called the cassava plant (scientifically *Jatropha manihot.*) This vegetable is industriously cultivated on miniature farms by the Indian women, and one of the curious qualities of the plant is its extremely poisonous character, in its natural state. It contains a large amount of prussic acid, which must be eliminated before it is fit to be eaten, the removal of this acid being accomplished by various devices for pressing every drop of juice out of the pulp. It is then made into thin cakes and baked, the ultimate result being a very satisfactory and nourishing food. The familiar

tapioca of commerce is also prepared from it. A cassava flour is also made, suitable for either bread or cake.

The word "bread," however, usually means the baked product of some form of cereal, and as such has been the most important food of man throughout all history. Indeed, the baking of bread was practiced at periods so remote that they antedate the very earliest historical records, the beginnings of the art being lost in the obscurity of the very infancy of the human race. It is certain that the making of bread was practiced by our prehistoric ancestors of the Stone Age. Not only have archaeologists discovered stones for grinding meal and baking bread in the excavations of the lake dwellings of Switzerland, but the bread itself, baked in that far-off, almost inconceivable antiquity, has been recovered in liberal quantities, preserved by the accident of having been charred or carbonized, probably in the fires which sometimes destroyed the pile-dwellings of these primitive folk.

Both at Robenhausen and at Wangen have been discovered bread and cake made of corn, chiefly in the form of small round biscuits, about an inch to an inch and a half in diameter. The material was not a meal, but usually grains of corn more or less crushed. In some cases barley was used, the halves of grains of barley being distinctly discernable. The sometimes flat and sometimes concave bottoms of these little cakes, indicate that they were baked by placing little masses of dough upon hot stones, then covered over with glowing ashes.

Such was the very first bread ever made upon earth, and it has probably not been improved upon since. It could not be improved upon, because it was the simple baking of nature's own product, uncontaminated by adulterants and robbed of none of the valuable constituents of the grain, as grown. The grains of those days were not much different from the grains of the present time, and the food they produced was the very best, even though not elegant in appearance. And the more substantial breads of the present time do not differ essentially from those primitive little loaves, except in the use of a special

oven, instead of heated stones. The coarse, unleavened breads of some nations of the world to-day are made either of crushed grains, or of grains ground only into a simple meal, mixed with nothing but water, and with not an atom of the valuable food material removed.

For instance, some of the Norsemen of the present time use a hard-tack bread made of unground rye. The grains are first soaked, then merely mashed by pounding, after which they are baked in disks of about a foot in diameter and an eight of an inch in thickness—or thinness rather. In the center of each piece is a hole, so that the bread may be stored away on thin poles after baking, or hung up on strings below deck in the fishing smacks. This hard tack is used chiefly by the fisher folk.

In the remote country districts of Scandinavia, also, the poor people bake "flad-brod" only twice a year, storing it away for future reference. Their diet is chiefly bread and porridge, with a little herring or other dried fish. The bread is made either of rye, or from a mixture of barley, rye and pea-meal, baked in thin layers, and is as hard as flint.

Far from the use of such delicacies as milk, eggs and cheese, the extreme poverty of some sections of the peasantry of Russia is such that they cannot even enjoy the pleasures of a whole-meal rye bread, but instead are compelled, during parts of the year, to mix their meal with ground birch bark, husks or pounded straw in order to make it go farther, or to last until the next harvest. Pitiful as this is, however, it may really not be very much worse than a diet of simply white bread and tea.

Barley will grow farther north than any other cereal, and is consequently much used by the Norwegians for bread. But for the most part, rye is used in Austria, Russia, Lapland, Northern Scandinavia and parts of Siberia, as wheat is used in the United States, and chiefly in the form of black bread. It may be said just here that the so-called black bread is not literally black, but varies from a dark golden brown to a very dark golden brown. The term "black" is probably used chiefly to distinguish it from white bread.

It is usually considered that the whole grain of wheat is a more perfect human food than that of rye, approximately more nearly the exact chemical constituents of the human body. But of the black bread in question it may not only be said that it is highly nutritious, but that it is thoroughly so, for many of these people practically live on it alone, possessing remarkable vigor, and enjoying a high average of longevity. It is said that reindeer sledge parties subsist upon it, in combination with unsweetened brick tea, for weeks together, with only the occasional addition of a bit of fish. Among the peasantry in many sections the almost exclusive diet of black bread is modified by the addition of onions or garlic.

There is such a large Russian-Jewish population in New York City that there are many bakeries which supply the very same bread which is used so largely in Russia. The black "pumpernickel," so-called, in some places is baked in tremendous round loaves, about eighteen inches in diameter, and weighing from sixteen to twenty pounds each. These loaves are cut up and sold by the quarter loaf, or smaller "chunk," at three cents a pound. They are heavy and solid, and have the purest rye flavor, even though somewhat sour. The sour taste is developed by the rapid fermentation of the sugar contained in the rye. From each baking a small piece of dough is retained to mix with the next batch, the whole-rye flour being mixed with nothing else than water, and allowed to stand for six hours before baking. This is a bread that not only may be, but *must* be masticated; otherwise one could not eat it at all. It is used very extensively by the Russians even in New York, in preference to the numerous fancy products of the bakeries. Another rye bread of a somewhat lighter character, somewhat soured also, but leavened, is likewise much used by the Jewish element of New York City, sold chiefly in round loaves of eight to ten inches in diameter, at eight and ten cents a loaf. This is also superior to the so-called sweet-rye commonly sold in bakeries. In this case the word sweet is applied not because it is sweetened, which it is not, but to distinguish it from

the sour-rye bread. There is a Bohemian rye bread very similar to the Jewish rye, though a little more heavy, perhaps less leavened, and yet not solid like the pumpernickel.

There is also to be had, especially in the German delicatessen shops of New York, a sweet pumpernickel, so-called only because it is not soured, and which to the American taste, not accustomed to the acid character of the Russian black bread, would be found much more satisfactory. It is, indeed, perhaps as near to the perfection and ideal of bread-making as anything could be, outside of a whole-wheat loaf made in a similar manner. This may be said in spite of the fact that it is solid, for if one chews his food as he should, the much-desired lightness of a leavened bread loses its advantage and attractiveness, and the question of pure flavor is the only remaining criterion by which to judge its quality. This bread is also very dark, and is very largely used in Germany.

There are a large number of hard-tack breads used in European countries, especially in Russia and Italy. They have the virtue of keeping indefinitely, just as the biscuits manufactured on a large scale in the United States, and commonly mis-called crackers, will keep their flavor and acceptability much longer than bread baked in the usual way. The Continental hard-tacks are usually very substantial, from a nutritive standpoint, and should also be valuable because of the necessity for chewing, though this advantage is to a large extent offset by the habit of dipping them in wine, coffee or soup. But even then they require greater dental treatment than light white breads similarly softened and washed down with coffee.

One of the most interesting of these hard-tacks is a small ringed bread used considerably in Siberia, in addition to the black bread. It does not even contain any salt, and after being first steamed is baked to render thoroughly dry. It is sometimes soaked in hot tallow to increase its heat-imparting properties, and is then especially valuable as a cold weather food. It can also be made to give both heat and light directly, just as a candle does, by inserting waxed

strings and touching a match to them.

The Italian coast-working population use a disk like hard-tack, with a hole in the center for storing, known as macaroni *pane duro*, which is usually soaked in their cheap wines, before it is eaten. It is of a light color, like that of the regular strip of perforated macaroni, and may be used similarly in soups, though in this respect is not as satisfactory.

The Italian breads for the most part are fairly substantial, though not so much so as the darker and more hardy breads of Germany, Austria and the more northern countries. Some of their loaves are narrow and very long, while others take the form of large rings, the "family" loaves being large enough to put one's head through with ease. For feasts and special occasions they are sometimes made of tremendous size, frequently two or three feet in diameter.

Oat cakes, which are still used somewhat in the rural districts of Scotland, are made by mixing up oatmeal, warm water and salt into a stiff paste, kneaded into a thin cake, first fired on a hot plate or griddle and finished in front of an open fire. In the towns, and even a part of the country, this wholesome form of bread and the old-fashioned porridge have now been largely displaced by the increased use of white bread and tea, and there can be no doubt that the present decreased vitality and lowered standards of health in the Scotch people can be attributed largely to this cause. Cereal vendors in our own midst are now endeavoring to introduce the idea of oatmeal bread as a novel and wholesome food, to further their business interests, but the recipes usually call for as much white flour—sometimes twice as much—as of oatmeal, in order to satisfy the craze for light and puffy bread. However, even this must be better than the unmixed white bread.

The corn-breads and "johnny-cakes" with which we are all familiar are invariably made up with a certain proportion of white wheat flour, and are not bad, even at that, but it is necessary to go to Mexico for a real corn bread. The much appreciated *tortillas* of Spanish-American countries are flat cakes made simply

of roughly ground maize, salt and water. In connection with milk or coffee, they form practically the entire breakfast of the people of Mexico, regardless of race or physique, and are also much used by the native Indians of South America.

In parts of Asia and Africa the natives make bread of several varieties of millet, a grain which in our own and many other countries is used as food only for animals. East India consumes more millet than all other grains put together. Great numbers of the more poverty-stricken classes of northern China, who cannot afford rice, grind up millet for bread and for porridge, and during a Russian famine some years ago millet bread was for a long time the only food which remained between the peasantry and starvation.

Bread may be made from buckwheat, though it is commonly used only for griddle cakes. It is not a grain, but a herbaceous plant botanically related to the rhubarb and sorrel. The name was originally beech-wheat, owing to the three-sided, angular shape of the seed. Rice need not be boiled, though most commonly prepared for the table in that way, or served in puddings, but among the Japanese and Chinese is frequently ground into a flour from which both bread and cakes may be made. Flour can even be made from potatoes by slicing, drying and then grinding.

One of the best and most wholesome of American oven products is the "Boston brown bread," made from rye, graham flour and corn meal, with black molasses, and usually served very hot. It is true that there is a belief to the effect that hot bread or hot muffins are indigestible, but this can only apply to those who do not use their teeth for the purpose for which teeth were intended. Graham breads and so-called whole-wheat breads are commonly sold at up-to-date bakeries, though in some cases they are not much better than the white loaves retailed at the same places. Some

of them owe their dark color largely to the black molasses in their composition. So much attention is directed to the task of satisfying the popular taste for light, spongy bread, that manufacturers of whole-wheat flours endeavor to give their customers a product of the same consistency as the white flour, or, in other words, to give them something as near like white flour as possible—a "distinction without a difference," as the saying goes. So that it is hard to get a genuine whole wheat. The best plan is to secure a small nut or coffee grinder that will enable one to grind his own meal, and have it fresh every few days.

Lack of space prevents more than the merest mention of aerated bread, which is raised by forcing pure carbonic acid gas through the dough by complicated machinery, instead of generating it through the usual process of fermentation. The advantage over ordinary leavened breads lies in the rapidity with which it may be prepared for the oven and in the fact that the possible evils of fermentation are done away with. It naturally lacks certain qualities of the flavor of fermented breads, though more pure and wholesome, and so far has not become popular outside of England.

There is no doubt of the value of white bread, however, as a means of cleaning and erasing. It is the practice among the students of many art schools to bring pieces of bread to school each morning to be used in making erasures on charcoal drawings. It is also very serviceable for removing soiled spots on wall paper, and the raw dough is used in very large quantities in watch factories for cleaning purposes. White bread is quite commonly used, also, in the form of a poultice, for relieving some of the ills that flesh is heir to, but its value in this connection is not so apparent, inasmuch as simple applications of cold or hot wet cloths would invariably be much more effective.

Hints on Exercise

A good exercise consists of raising an ordinary chair from the floor, with one hand grasping the lowest front round.

One can fasten a strong rope, three or four

feet long to the wall, and practice the tug-of-war alone for exercise. A strong spring can also be used in this way.

Amsterdam, N. Y.

A. E. BENN.

Reform Work in a Penitentiary

A WARDEN WHO ADVOCATES THE HUMANE TREATMENT OF PRISONERS. SOME OF THE REFORMS HE HAS INAUGURATED AND THE RESULTS THEREFROM

By Harry G. Hedden

Our methods of treating prisoners can rightly be termed devilish. If because of some minor offense or through some technicality you are thrown into the average American prison, you will have to be a man of strong character to avoid the influences which work towards making confirmed criminals of the inmates. If you are not a criminal when you enter, you are almost sure to leave with mind and body and soul so deeply steeped in criminal desires that reformation in your case is nearly impossible. Out in Iowa the warden of the State Penitentiary has begun a reform that promises splendid results. He is apparently a man as well as a warden. He has some consideration for his fellow-men and if it were possible to have Federal supervision of all prisons and place a man of this kind in charge of such a department, prisons would then indeed be reformatory, as they are rightly intended to be.—Bernarr Macfadden.

OUT in the new State of Oklahoma, Kate Barnard, with courage, wit, and a deep and sensible sympathy for the unfortunate and suffering, has wrought a wondrous reformation in the care of criminals. The work of "Oklahoma Kate," has been felt in both her own State and progressive Kansas, and has been studied with interest throughout the country. In Iowa, J. C. Sanders, Warden of the State Penitentiary, is bringing about a similar reform in prison life. In other States, and also in foreign countries, the care of convicts is receiving careful, scientific study.

Like every reformatory movement, this one is of

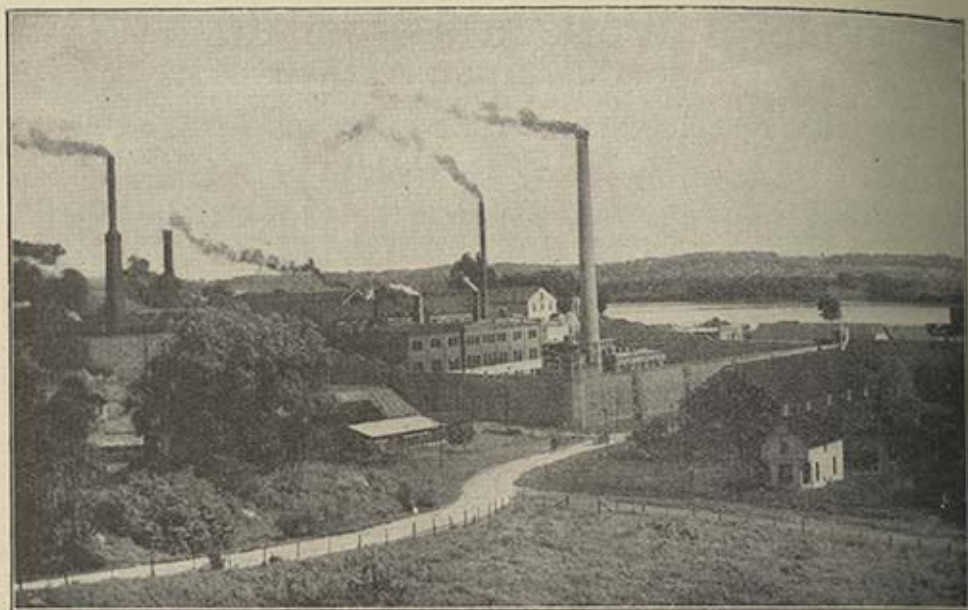
general interest. Certain features of Mr. Sanders' work, however, will be of special interest to sociologists and to physical culturists, as suggestive of the wonderful possibilities

in the scientific reformation of weak and wicked humanity.

When Mr. J. C. Sanders became Warden of the State Penitentiary, at Fort Madison, Iowa, he did not enter into his official work as a salaried keeper of culprits; he considered himself as a public servant and as a reformer of fellow-men. He was not content to do just as his predecessors had done; he wanted to do better than they had done. Not satisfied with conditions at the Penitentiary, he determined



J. C. Sanders, the warden of Iowa State Penitentiary, Fort Madison, Iowa, a reformer who believes that prisoners should be treated as men.



A view of the Iowa State Penitentiary from a photograph taken outside the walls.

to do all he could to create better conditions.

Mr. Sanders began his reform work in the kitchen and mess-room. Instead of allowing the prisoners to be provided with miserably prepared food and served by unkempt waiters and amid unwholesome surroundings, he brought about careful and sensible cooking, taught the waiters to dress cleanly and neatly in white uniforms, and greatly changed the appearance and atmosphere of the mess-room. He even provided music at meal-time in order to take away the cheerlessness of the prisoners. This last step led to the prompt organization of a glee club, orchestra, and band among the inmates.

An athlete himself, Warden Sanders believed in an abundance of fresh air, sunshine, and out-door exercise. As soon as possible, he arranged to give the men thirty minutes more of time at noon, at which time he provided light exercises. That the men were glad to work later at night to make up for this intermission at noon is shown by the fact that they soon organized several athletic teams.

Knowing the need of mental exercises as well as physical, the warden effected several important changes in the prison school. From a school having one teacher

and seventy-three pupils, offering only a few branches, and running only six months in the year, he changed it to a school open the entire year, offering nearly all the branches of the common school and high school, and enrolling two hundred pupils and twelve teachers.

Then followed an increase of library facilities and privileges, and the organization of a literary and historical society.

Mr. Sanders next turned his attention to the hospital. He arranged for greater privacy, consideration, and care in the examination and treatment of sick prisoners, provided white bed spreads and new window shades, and made the hospital more healthful and cheerful in many ways. In this work, as in the culinary reform and other efforts to better conditions, the warden received much assistance from his worthy wife.

The deep interest which Mr. and Mrs. Sanders have in the prisoners tends to influence the inmates of the penitentiary to take more interest in themselves, in one another, and in society as a whole. They think more kindly concerning the laws which have imprisoned them for crime, and they experience a desire to come out of the penitentiary able to live upright and useful lives. Treated as men, they

try to be men. Given cheerful surroundings, they respond with cheerfulness. They realize that others are trying to better them, physically, mentally, and spiritually; and they try to better themselves.

In addition to the features of reform described, Mr. Sanders has brought about many others. He has established a fire department, which has extinguished two serious fires. He has greatly improved the sanitary conditions and beautified the surroundings of the penitentiary. He has interested the prisoners in various trades, in cultivating flowers, in reading good literature, in studying art and architecture, and in appreciating themselves and their friends. He has provided a prison optician and a prison dentist. He has given the prisoners greater privileges relative to clothing, to sending and receiving mail, to communicating with one another, and to being visited by relatives and friends. He has also taken a deep interest in providing them with religious influences.

In all his treatment of the prisoners, Mr. Sanders tries to uplift. He strives to create in every man a strong sense of self-respect. He provides fewer and less demoralizing punishments and more and

better rewards. He compels prisoners of one grade to wear checked clothing, but rewards them by permission to wear plain clothing when they have earned that privilege. He compels offending prisoners to wear stripes as a punishment for offense, but he also rewards them for repentance and reformation. He does not compel all the inmates to wear striped clothing, and he does not deny all but a few favorites the privilege of purchasing and wearing laundered shirts, etc., if they wish them and are entitled to the privilege. It is said that seventy per cent. of the prisoners buy a large part of their clothing, thus pleasing themselves and at the same time lessening the expenses of the institution.

Here are a few of Warden Sanders' ideas, quoted from a paper prepared by him and published by the Iowa Board of Control, entitled, "Rewards and Punishments."

"This paper is supposed to treat 'rewards and Punishments,' as applied to penitentiaries. Long after father and mother have sinned through omission; long after the formative period of life has passed and nothing but a wreck and a shell are presented to the turnkey's office; long after the moral and religious



The prisoners enjoying a game of ball.

instincts have been decultivated; long after every influence has been brought to bear to weaken; long after the miserable jails of Iowa have stung them; long after the courts and municipalities have given them the 'gravity kick'; long after a few should have been sent to Glenwood; long after the inebriate should have enrolled elsewhere; long after some have become insane; long after hate, anger, judge, jury, mob, and prejudice have placed their 'fiat', we are asked to reward and punish. When we contemplate the psychology of a mob of intelligent people, we seriously doubt our moral right to punish."

"The idea of reward must not appear synonymous with bribery. It too often happens in this world that men have to be bought in the coin of the realm, but this is not what is desired. Men must be inspired with the idea that they *are men*, entitled as *men* to the fullest of every privilege which they can only lose by ceasing to be *men*. Self-respect is recreated at once, there returns a sense of personal dignity, and these are the two kinetic forces of reformation. Eventually even the confirmed criminal, the exceptional, will respond to them, for they

are innate with every man, though sometimes buried deep beneath carelessness and indifference."

"The right of society to defend itself is without question, yet with certain limitations. Might is not always right, and the majority is not always just and fair."

"Punishment involves pain, loss of power, property, liberty or life. The primary object is to restore social order by enforced obedience. Rewards carry with them real pleasure, profit, honor, the enjoyment of life, liberty and the pursuit of happiness. Punishment from the human standpoint is the logical result of disobedience to a given and fixed law. Rewards are the blessings of right living."

"It is not alone sufficient that men should become penitent, but it is necessary that every attribute of the human soul should be cultivated and every effort brought to bear to bring about this result. Let us punish the criminal by confinement and reward society by a man born anew. Let us be as sensible as the hospitals."

The work Mr. Sanders is doing in the Iowa State Penitentiary affords many valuable lessons in the uplifting and the upbuilding of humanity.



Partial view of the residence of J. C. Sanders, the warden.

Physcultopathy, the New Science of Healing

THE TRUE SCIENCE OF LIFE—INVALUABLE INFORMATION ABOUT HEALTH AND DISEASE—VITALITY AND STRENGTH WITHIN THE REACH OF DILIGENT SEEKERS AFTER TRUTH

By Bernarr Macfadden

In the series of lectures to be published under the above heading, will be presented a thorough exposition of the fundamental principles upon which Physcultopathy, the new science of healing, is founded. If you become thoroughly familiar with the information found herein, you need never thereafter have the slightest fear of disease. You will know what it is and how to treat it whenever it may appear. This series of lectures has been given in an institution with which I am connected, and I want each reader to feel that I am standing before him and emphasizing each statement that is found herein. These lectures will be weighted with practical and valuable truths. As nearly as possible they are given here just as they were taken down by the stenographer at the time they were delivered.—Bernarr Macfadden.

DISEASE AND THE SEARCH FOR TRUTH

LECTURE I.

THE word disease very plainly defines its own meaning. Disease—want of ease. That is a very clear yet emphatic definition of disease. Disease usually carries with it functional disorder, pain, congestion or other abnormal manifestations. It may be more or less severe, or it may be of such minor importance that you will not notice its appearance. Now there is a general misunderstanding throughout the entire healing world as to the nature of disease. From our standpoint there is nothing intricate or mysterious about disease. I do not believe anyone is really and truly educated until he understands disease. You are bound to come in contact with it sooner or later. You cannot avoid it as long as you are living under what we term civilized conditions, as long as you have to subsist on food that is found in the average home, restaurant or hotel.

For several generations our food has been selected largely because of its appetizing appearance. Naturally the appearance of foods is of very great importance to many. If they are finicky, they like the table attractively arranged. The food must be attractive as well as tasty. It must be served in a pleasing manner or, to be plain, we have to cater to a large extent to a degenerate appetite. If you have a real appetite, such as one secures after abstaining from food for a

few days, you will not bother much about appearance. You would be more interested in the taste of the food, and you would become so engrossed in its enjoyment that appearance would be of but slight importance to you. It is, therefore, the finicky, perverted appetite which is to a large extent the cause of the present dietetic errors, and is very frequently the cause of numerous diseases from which so many suffer.

I shall never forget the mental processes that I had to go through when struggling for the truth on this important subject. It was almost like "getting a new religion." It could really be termed a transformation, a revolution. These new theories change your entire existence, they change your viewpoint of life. You look at things thereafter so differently that you really cannot properly describe the change. It is impossible to thoroughly impress the conventional mind, be it ever so gifted, with the accuracy of the theories that I am presenting in this and other lectures which are to follow. They may be ever so interested, but their grasp of the ideas will be mysterious and vague. It will take a long while for them to fully realize these healing truths in all their magnificence, and yet when they can work such a transformation in your life, when they can literally revolutionize and change—with

one stroke you might say—your entire career, they might reasonably be termed magnificent, notwithstanding their simplicity. You must remember, however, that all great truths are simple.

There are men with great powerful intellects who are groping along in the maze of complicated problems that are found in the science of healing. Sometimes they are actually injuring themselves or those who depend upon them for advice, simply because they have neglected to consider these great simple truths. They have gone by them and because of their simplicity have failed to recognize their value. They are always looking for something that no ordinary person can understand and they spend their lives delving in these intricate things. Sometimes they "lose their way." They lose "life's balance wheel," or the ability to distinguish between the important and the unimportant. Men with great minds often suffer severely and even die years before their time because they have failed to see the importance of simple truths. Many of them also after a few years develop into pretenders or fakers. They look for some theory that is so deep and impenetrable that no one can thoroughly understand it. They can then expound learnedly upon this particular theory, as they cannot understand it themselves and they are sure that nobody else will. They are then absolutely sure that the public will be really and truly mystified. It is said that the average American likes to be humbugged. Not infrequently he likes to be confused by big words. He is inclined frequently to greatly respect one who can glibly use words that are "Greek" to his hearer.

But returning to the mental processes I had to undergo in searching for the truth, I would first of all emphasize that there is nothing that so awakens the human mind, so stimulates the human energies as pain or suffering. When you are compelled to endure pain continuously, it has an awakening influence that cannot be equaled in any other way. You are bound to do some reasoning on your own account if you find others unable to help you. You are sure to seek relief in every possible avenue. The

average individual of to-day in searching for a remedy for his physical troubles is chasing after false gods, false theories.

In those dark days of the past when I began to "pick up" a physical education my search for knowledge, for information, was intense and diligent, but I wanted the things that I could understand. I was not searching for complications. I wanted something that appealed to my common sense. I learned even at that early age that there exists a hundred times more knowledge that refers to the simple things of life than one can learn during his earthly career. Therefore, why bother about things that seem mystifying and complicated?

In searching for these simple truths, to be sure, I had to lose faith in medicine and medical theories. Naturally I tried drugs of various kinds. I had to experiment with pills and all sorts of potions. I started in with a certain amount of faith in a teaspoonful of this and a teaspoonful of that. I very distinctly remember the first bottle of dope that I took home with me. My thoughts at that time inclined me to believe that my sufferings would soon be over, for I had read the promises on the label of the bottle, and at that time I was inclined to believe what I might read. However, I did not belong to that class which cannot learn even from experience. If I try a certain remedy again and again and fail to secure that for which I am searching, I look for other means. It may be this particular characteristic was due to the fact that I was born in Missouri, but anyway it did not take me long to lose faith in medicine. I soon realized that nothing was to be secured from nauseating drugs.

I began to think, after awhile, that those so-called scientists who compounded medical remedies did not have a monopoly of knowledge. Perhaps there were other non-medical means of securing relief and though I was a mere boy at the time I began to search for other means of securing relief. I remember one of the first valuable thoughts that came at that time, which to a certain extent taught me the fallibility of man. I compared man, who calls himself the higher animal, with what we term the lower animals. I compared them in strength and

endurance and was compelled to admit that the lower animal was our superior from a physical standpoint. They are usually more compactly and more beautifully proportioned. From a standpoint of health, they were in far better condition, and it immediately occurred to me that our boasted enlightenment and power of intellect could be of slight importance if it could not maintain at least that degree of physical vigor maintained by those animals that did not possess these superior mental characteristics. The lower animals did not need doctors. They were without the exalted science of medicine. They did not know anything about dietetics, and yet these animals when not contaminated by man were in most cases good-looking, well-formed, nicely rounded, and attractive in appearance. And you take the average man or woman. They would hardly present a pleasing appearance if they were without their ordinary exterior covering.

If a law were suddenly enacted compelling all human beings to go without clothes, I think we would all be appalled by the miserable specimens of human life that we would see everywhere. Though I would not be so bold as to advocate such a change, I am inclined to think it would be a splendid thing for the race. All the time that is given now to dressmaking and tailoring would be devoted to building up a superior body. In other words, we would cultivate those charms and attractions which are real, instead of being external and artificial. It is indeed a shameful confession that we, with all our superior intelligence, in most cases must admit that the average horse or even the cur dog that is fed at infrequent intervals is in a better physical condition than we are. He can run faster, his digestion is better, there is no occasion for operating upon him for appendicitis. In other words, with these lower animals there is no need of medicine. It is needless, useless.

I will term the above comparison one of my first lessons. If you will try to develop an open mind, devote some time to careful consideration, you will be compelled to conclude that we, the so-called superior animal, with all our knowledge, our sciences, are in many instances

inferior representatives of the animal world. Now the lower animals simply follow their instincts. This is not always true of domestic animals, for their general condition is not so good as is found among wild animals that are unhampered by man. When you come in contact with civilization, then you find perversion. He has to stop playing, he has to go to work, he has to make of life a tedious task. Now I do not believe anything ought to be a task. I do not think that life should ever be made monotonous, prosaic, complicated, anywhere—at any time. My work is never humdrum. It is play—continuous—never-ending. When you love your work, when you put your soul into it, it is nothing more than play. Take the average animal out in the forest, unhampered by man, and you will find it playing from morning to night. To be sure, sometimes it may be hungry and it will search for food, but that is really play because the search is intensely interesting.

Now another great truth came to me about that time or a little later, which I observed as a boy on the farm. I noticed on several occasions that when any of the horses were ill, "off their food," as they would call it, they would not eat. Now the average man of medicine is of the opinion you have to eat to keep up your strength, but the horses to which I have referred would miss a few meals at this time. No one brought them dainty, appetizing dishes, when they refused to eat, and in time their appetites would return, they would apparently recover, the illness would disappear. That was a very important lesson. I realized that these animals were following their instincts. When they were not hungry, they did not eat, and their process of recovery was naturally very greatly hastened. Now man, with his superior intelligence, must have an appetizer when not hungry. If he does not eat, he is liable to be sick, so it is said; but I have learned since that if you do eat at such a time your sickness will be greatly prolonged because of this outrage upon the stomach, which is not prepared or able to digest food. If you put food into the stomach when it is not needed, you simply poison

the system. You compel the digestive organism to rid itself of a needless load. A certain amount of nervous energy is required to eliminate this food, and your ability to recover is made just that much more difficult.

A very emphatic illustration of the truth of this statement can be found in the remarkable results that are secured in the treatment of fevers while fasting. It has been proven by experimentation that the weight and strength are reduced faster when feeding in fevers than when no food is given. This may seem a startling statement, but a little experimentation with a patient suffering from this complaint will quickly prove this statement. The most modern medical treatment for fevers is the very free use of milk. In many cases several quarts a day are fed, but if instead of the milk, water alone was used, recovery would come far more quickly, and a number of patients that now succumb to this ailment would unquestionably recover.

We are always talking about our superior knowledge. I am inclined to think that in fifteen or twenty years we will look back upon the mistakes we are now making as nothing less than murderous in character. Not so many years ago it was the policy to forbid a drop of water to patients who might be burning up with fever. A few years previous to that, bleeding was freely prescribed for almost every ailment. Nearly every new theory is branded as fanatical, sometimes it is called obscene, and many who have new treatments, though they may be ever so simple, are often compelled to fight for a time to secure their recognition. They must indeed in many instances be made of fighting stock. But a fight is interesting. When you have to struggle valiantly and vigorously for the result that you may be seeking, interest and zest are added to your efforts.

To those who want health, manhood or womanhood, these superb powers will come if they will work diligently and persistently. If you will realize the great truths that are being presented in this publication, and especially in this series of lectures, you will have to do some thinking on your own account. Begin to cultivate that strength of mind essential

in forming conclusions of your own. You will be compelled to a certain extent to take a similar path to that which I began to follow many years ago. You have to struggle in the same way, meet the same objections, come in contact with the same prejudices. Now and then you may be called a fool or a fanatic. I shall never forget my experience with my grandmother on one occasion. It was my habit at the time to which I refer to carry a ten-pound piece of lead back and forth to my place of business. The distance was about three miles, and I always walked. I would carry this ten-pound weight in one hand until the muscles of the arm and shoulder began to tire, and then I would shift it to the other hand. On one occasion my grandmother saw this weight on the hat rack. "Why, what in the world is this?" She asked. I told her the use I made of the weight. "Why, you are the craziest fool I ever did see," she emphatically declared. "You'll be in the insane asylum yet." These were almost her exact words, and it will give many of my readers a fair idea of what will probably be their own experience if they decide to study and adopt these theories. At the time to which I refer, there was but little literature on this subject. There is a great deal of it to be found now everywhere, but I was groping along in the dark, you might say, with the one object of seeking health and strength, manhood of the highest degree.

"Well, you've got queer ideas," I have heard again and again. "Where do you get them?" and like questions were thrown at me on all occasions. My friends and acquaintances were not at all backward in their criticisms. In fact, I must really admit that there were times in the early days of my enthusiasm when I momentarily harbored the idea that maybe I was a little bit crazy. I shall never forget the first book that I read on the subject. It was the first one written in this country. It was written by William Blakie and the title, I believe, was "How to Get Strong." From the introduction it was apparent that this author had traveled the same road that I had selected, and as I read his conclusions they almost seemed to be my own

thoughts. The reading of that book strengthened me. It made me feel that perhaps, after all, I was not such a fool. In this age you have the benefit of the work of pioneers. In this path towards superior manhood and womanhood, you will not meet with so much bitter prejudice, but still there is much of it to deal with. If my friends had an opportunity to read some of the communications that I receive from enthusiastic physical culturists, you would readily realize that they are also having their trials. In some cases they are doing the best they can to scale "mountains" of prejudice, but as I have said before, when you become fully convinced of the accuracy of our propaganda it is almost like getting another religion. You see many things in life that never appeared to you before. You begin to appreciate at their true value health and strength. You begin at times to experience the thrill that comes with superb vigor, with the power that reverberates through every part of the body, and which at times makes life's every moment a pleasing experience. Your ambitions are increased, your enthusiasm is intensified, and you become possessed of that confidence in the future and your own powers that makes failure almost impossible. You are sure to keep on struggling and striving for the goal that you may have in view, and success is sure to come your way, richly, abundantly. I know many will say that I am too enthusiastic. I have been told that this physical culture reform was my religion. I must admit that it almost is, and I am firmly of the belief that the principles we stand for should be an important part of every religion. It should be fundamentally a part of every human life. Without health, without a strong body, you are nothing but a mere automaton, a poor, incompetent human machine. You cannot be influenced by fine emotions, you do not possess those superior mental and physical characteristics that are the product of healthful human instincts.

A great many now claim that the mind is everything. Many maintain that it is the brain that is of importance, that the body amounts to but little in comparison. Let us for our present purpose not

contradict this assertion, but at the same time allow me to ask if the mind is not nourished by the blood? If this is true, then the mind is fed by the blood-making and assimilating organs. Now if the mind is of such importance, does not the quality of the blood furnished to the mind greatly influence it? Now, if you will admit the truth of this conclusion, you will also have to acknowledge that superiormuscular energy and the superior vitality that comes with it, is absolutely essential to proper activity of the mind. The blood must have those elements that instill one with mental strength, with courage and confidence and enthusiasm.

One cannot exaggerate the importance of supplying pure blood to the brain. This conclusion is thoroughly proven by the mental process that one undergoes when his courage is tried, as for instance, in times of war. The brave man is a strong man. Courage and physical energy are companions. The coward is a weakling, and bravery might be termed nothing more than a mental process. This mental process is influenced by the quality of blood that nourishes the brain. You must have good blood in order to enter a fight with the confidence of winning, in order to have the courage, the indomitable spirit, that struggles on to the end; and in referring to fighting I do not mean merely the murderous contests that occur on the battlefield, or the physical encounters that are frequent in times of peace. I mean the mental ability to struggle for a reward or for what you deem to justly be your rights.

I am a firm believer in the great value of cultivating the fighting spirit, especially if you desire to be or to do anything in life. If you struggle for money or any other reward, the fighting spirit is essential. It is especially essential if you become imbued with the theories that we are advocating. You would need it as soon as you would try to impress your friends and acquaintances with the importance of our propaganda. They would soon begin to consider you "a bit batty," for you would be eternally and forever talking about health and muscle and vitality, and why shouldn't you? If you have been transformed from a weakling or from a physical automaton into a

strong, robust, enthusiastic and powerful specimen of manhood, by following the simple suggestions found in the theories advocated in our propaganda, you could hardly avoid being enthusiastic. Your statements are sure to seem exaggerated, and those who have not had the same experience are naturally inclined to question your conclusions. They seem impossible, unbelievable. Now when you come in contact with those who are inclined to belittle the value of muscle, merely call to the attention of these superior individuals that every functional process of the body is performed by the aid of muscle. There are muscles in the stomach, there are circular bands of muscles around every small intestine. You cannot wink your eye, you cannot speak a word, without the aid of muscles. Muscles furnish an important part of the mechanism necessary to human life. For instance, you cannot record a single thought, you cannot voice a single opinion, either verbally or otherwise, without the aid of muscle.

You may dispute the accuracy of this assertion by claiming that the reasoning processes do not require muscles, that the brain is not made up of muscular tissue, the thought is not recorded on muscular tissue. All these statements are true, but nevertheless the brain cannot exist without the aid of those muscles, that first of all assist in making the blood, and finally propel this life-giving stream up into and through the brain.

Remember that the body is a machine made up of bones, ligaments, muscular and other tissues. Surely you want to become possessed of a good machine, you want superior tools to work with. You want to secure the best there is in life, you want to be capable, confident, and even talented. If you are a carpenter or a mechanic, you do not want to work away with dull tools. You try to avoid turning out poor work, and you desire to turn out good work as speedily as possible, and you want superior tools well sharpened. It should be your ever-present desire, you should demand that the human body become an efficient and superior machine. There is no excuse for being an inferior human machine. I

care not what your inheritance may be. If you are a sick, emaciated, ugly specimen of human life, you pay the penalty for your own sins against the laws of life, and in practically every case you deserve to suffer these penalties. In Nature's court there is no board of pardons. You have to pay the penalty in every instance. As a rule, you have to pay it with interest, and heavy interest at that, and when you draw out nearly all of the physical capital that you have in the human bank, you are almost sure to be down and out forever. Remember there are two kinds of capital. There is the capital in the form of health, strength and vitality; and there is another kind of capital that we term financial, and the comparative value of the physical and financial capital is but little understood. Physical capital means life, success, happiness, and the ability to enjoy all the good things that come to us here on this earth. Financial capital means power to do all sorts of things, it means the opportunity to indulge in all sorts of excesses, and the question as to whether or not it brings true success and the happiness which we are continually yearning for, is not difficult to answer.

In the next issue I will publish the lecture that followed this one, entitled the "Nature of Disease." The lecture just concluded may to a certain extent be termed rambling in character, but it should be looked upon largely as an introduction. Remember each of these lectures is published just as spoken. A few words here and there have been changed with a view of giving greater clearness to the meaning, but remember that I want my readers to feel as nearly as possible, that I am standing before them as they are reading these lines. I want to try to inspire you all with the same enthusiasm, the same spirit of hope and cheerfulness and ambition that comes to one when he is imbued heart and soul with the splendid truths which we are trying to make a universal possession. In my next lecture I will try to make you understand the nature of disease. I want you to cease to fear disease, I want you to become possessed of the mental confidence that eliminates entirely this fear.

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Goat's Milk as a Food

AN IMPORTANT ARTICLE OF DIET WHICH IS WORTHY OF ATTENTION—SOME DETAILS OF THE SUPERIORITY OF GOAT'S MILK OVER COW'S MILK

By Charles Merriles

From the various reports that come from European countries it is quite evident that goat's milk is more nutritious, and is less likely to be infected by disease, than cow's milk. The following article contains information that should be of much interest to our readers. When meat is eliminated from one's diet, the quantity of milk used is usually increased, and vegetarians who make use of milk should be certain that its quality is of the best.—Bernarr Macfadden.

RARELY indeed do we hear or read anything complimentary to the goat. We have been educated to regard the goat as a highly odoriferous animal, whose habitat is vacant lots, ash piles, backyards, alleys, and highways in many climes, and which feeds voraciously upon weeds, brush, clothing, clothes-lines, tin cans, garbage boxes, old iron, and similar delicacies, making itself both smelt and felt, if not seen and heard. It will probably be surprising to many to be

In many foreign countries, people consider the goat a very valuable animal. In this country, experts in the United



Photographs by David G. Fehrbill.

Spanish Milch Goats.

States Department of Agriculture are studying the industry of goat-raising in other lands and encouraging its introduction here.

Nowadays we are intensely interested in the study of cow's milk as an article of food and as a medium frequently charged with the spreading of infectious diseases. It is very fitting, therefore, that we give some careful thought to the food value of goat's milk, which is such an important item in the diet of thousands of people in other parts of the world.

informed that the goat has considerable intrinsic worth beyond its ability to amuse mischievous children, and to so perfume the atmosphere as to cause hurrying Americans to pause long enough to realize they are breathing beings, to butt absent-minded bystanders into consciousness of external reality, and to furnish an inexhaustible source of inspiration for humorists.

For the information presented in this contribution, the writer is indebted to George Fayette Thompson, M.S., Editor of the Bureau of Animal Industry, United States Department of Agriculture.

ture. Mr. Thompson has made an elaborate and comprehensive study of the subject of the care and value of milch goats, and quotes extensively from eminent authorities in several countries in which goat-raising is a highly important industry.

It is said that as a food for man, the milk of the goat is far superior to cow's milk. It is purer, more nutritious, more easily digested, and more nearly a perfect food for the human system. While some students are more conservative,



A very uncommon and simple method of feeding children during their first year is in use in Cuba. A goat is tied fast to a chair, and the children in this way obtain the milk entirely unadulterated.

many are very enthusiastic in their commendation of this article of diet.

In composition, goat's milk has a smaller proportion of water, and a considerably larger proportion of both fat and albumin. In proportion of sugar, casein, and dry substance, the two kinds of milk are about equal. Some analyses give the goat's milk a higher proportion of sugar. Even if the percentage of sugar

is equal, however, the milk of the goat is much richer in nutritive composition.

The purity of milk is an important subject, a subject which is receiving scientific investigation by dairymen, physicians, health officers, and others. In our cities, it is claimed, thousands of persons, principally children, are killed every year by impure milk. This impurity is due chiefly to unsanitary methods of obtaining and caring for the milk, and to the presence of tuberculosis in the cows. As goats are far less liable to tubercular infection than cattle and are naturally more healthy, it ought to be possible, with equal effort, to gain a higher degree of purity in goat's milk.

Some writers claim that goats are absolutely immune from tubercular infection. Others, however, hold that careful investigation fails to bear out the truth of this theory. At any rate, there is abundant evidence in support of the claim that goats are far less liable to infection than cattle, and in fact almost entirely free from tuberculosis. Comparative results of investigations of the condition of cattle and goats killed for meat are very interesting. At one of the slaughter-houses in Germany, 41.03 per cent. of all the cattle slaughtered in one year, and 45.82 per cent. of the cows in this number, were found to be tuberculous. Of 1,500 goats publicly slaughtered in one year, however, only 0.6 per cent. were found to be infected.

Because of its purity, its digestibility, and its nutritive value, goat's milk is an excellent food, especially for children. Its composition is said to be almost the same as that of human milk; so it is particularly wholesome for infants. Further more, as its cream rises far less rapidly, it remains more nearly in an unchanged condition for several hours. In certain tests, hardly any cream rose when the milk was allowed to stand twelve hours or longer. It is thought that this characteristic of slow change is due largely to the extremely small size of the fat globules, and also that the minuteness of the fat globules greatly increases the digestibility of the milk.

Foreign writers commend goat's milk



Langensalzaer Goats.

not only as food for children but also as food for invalids and for use in cooking. Some of them hold that the milk is highly beneficial when used as a medicine for certain diseases and ailments. In a number of sanitariums in France and Switzerland, this milk is considered as an important factor in the systems of treatment. In these places, the goat's milk is used extensively in the cooking; and it is also given to the patients in large quantities in its natural state.

There has been a great deal of criticism concerning the flavor and odor of goat's milk. Scientific men, however, claim that the offensive odor and the unpleasant flavor are due almost entirely to careless customs of feeding the animals, and to unsanitary methods of procuring and caring for the milk. Unfavorable food and unsanitary conditions are capable of causing cow's milk to have an undesirable odor and bad flavor. Even greater care is needed, perhaps, in the case of

goat's milk; but scientific processes will bring about satisfactory results. As the milk of the goat is richer, thicker, and probably a trifle sweeter, the taste is necessarily different from that of cow's milk.

Not only is goat's milk in its natural state a wholesome food, but it is also very valuable in condensed form and when made into cheese. For infants, condensed goat's milk is said to be far more healthful than condensed cow's milk. Some of the most expensive kinds of cheese which we import from France and other European countries are made from goat's milk.

For butter, the milk of the goat is not so good. This fact is due to the slowness with which the cream rises, and to the whiteness and softness of the butter. In this one respect, when equal methods are employed, this milk is inferior to cow's milk.

The whey of the goat's milk is highly



Hinterwälder Doe.



Schwarzenburg-Guggisberger Doe.

commended for its nourishing and medicinal properties. It is held to be especially beneficial for lung diseases and for weakness resulting from innutrition.

On account of the comparatively low cost of keeping, the milch goat is especially valuable to the poorer classes. It is estimated that seventy-five per cent. of the families in Germany keep goats. In that country, many people too poor to keep cows are able to have a goodly supply of milk by keeping goats.

Both in relation to the supply of food and in relation to the weight of the body, the goat's yield of milk is exceedingly large, about twice that of the cow. About three quarts a day is a good yield for one goat. This seems to be about the average in Germany and Switzerland.

While goats probably require greater gentleness in handling than cows, yet when treated kindly they are exceptionally easy to milk. In some countries, the people train their goats to allow children to suckle, as shown in the accompanying illustrations.

The prices of goats are said to range from \$2.50 to \$100. They are highest in England. Common American goats sell at from \$2.50 to \$10; the various breeds of Switzerland bring about \$20 each; in Syria and Egypt, the price is often as low as \$4; the best milkers of Malta

bring from \$18 to \$25. In England, a very fine milker will sometimes sell for as high as \$40, while a pure Toggenburger will bring \$100.

Reference has already been made to the low cost of keeping goats, and also to the health of the animals. A few facts concerning food, climate, and habits may be of interest.

Goats will thrive upon food which cattle will not eat. Because the goat is not very careful in the selection of its food, many people, desirous of economizing and careless concerning the quality of milk, make the mistake of not furnishing their milch goats any better food than weeds, brush, and garbage. This practice is harmful both to the purity of the milk and to the health of the animal. Milch goats, as milch cows, ought to be provided clean and nourishing food.

While there are many goats in both hot and cold countries, and while short-haired breeds endure extreme cold and long-haired breed extreme heat, it is probable that a temperate climate is more favorable than either extreme. All breeds require considerable protection from severe storms, especially cold rains and sleet storms.

The best locality for goats is one in which the altitude is high, the land hilly



Another view of the Cuban method of feeding infants on goat's milk direct from the udder of the animal.

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and rocky, the air dry, and the vegetation sufficient to furnish an abundance and variety of pasturage. Thus it happens that land not good for farming, or even for grazing land for cattle or horses, may be very favorable for goat-raising. The animals prefer a healthful location.

In gathering their food, goats get an abundance of exercise, thus tending to maintain a healthy condition. They seem to enjoy climbing about on hills and mountains and over rocks, and often travel a great distance in a day's browsing. They also like a variety of food.

In many cases, especially when fresh, goats are milked three times a day. In some respects, however, the milking requires less work than the milking of cows.

Near Palisades Park, New Jersey, goat's milk sells for twelve cents a quart. In some places, it is sold for as much as twenty-five cents per quart.

In some respects, milch goats require a little more care than dairy cows. In other respects, however, they require considerably less care. For instance, it is

commonly claimed that eight goats will subsist upon the amount of food required for one cow and at the same time furnish a good yield of milk. In general, goat-raising is less expensive than cattle-raising.

There are several reasons why the raising of goats and the conducting of goat dairies along sanitary and scientific lines ought to receive careful consideration in the United States. Many sections of the country, especially in and near mountains, are peculiarly favorable to the industry. The value of the milk for children and invalids ought to make very profitable the operating of goat dairies near cities favorably located, and especially in the vicinity of health resorts. The remarkable hardiness of the animals in respect to contracting diseases tends to make very small, comparatively, the risk of an investment in goats. Such an industry ought to appeal very strongly to persons desirous of living in a healthful climate and leading an out-door life, and to those interested in rendering valuable service to seekers for health.

Cincinnati Children's First Play Festival.



An interesting photograph taken at Lytle Park, Cincinnati.

The above is a photograph of the first Play Festival held in the United States under the auspices of the National Play Festival Association as suggested at their convention in Pittsburg recently.

The scene shows the athletic playground section of Lytle Park, Cincinnati, when hundreds of little children of the tenement district gathered and went through gymnastic exercises and fancy drills. Many rich men and

women of the city are interested in the work and a considerable number of them gathered with the very poor of the tenements to see the little ones drill.

This is the park President Taft declared a fine thing for the poor of that section. The new Home for Working Girls just completed is shown in the upper right corner. The Taft Cincinnati home is almost directly in the rear of this structure.

Making Babies Healthy, Strong, and Beautiful

ANNOUNCEMENT OF THE WINNER OF OUR PRIZE BABY CONTEST—
HOW TO BUILD HEALTH AND STRENGTH IN EARLY CHILDHOOD

By Bernarr Macfadden.

SOME time ago, we inaugurated a prize contest in which a gold medal was offered for the most perfectly formed baby. The announcement of the winner in this contest has been unavoidably delayed. We are pleased to be able to inform our readers that the contest has been won by Otto Poyck, 3120 W. 18th Place, Cleveland, Ohio. There were many babies that so closely approximated the superior physique exhibited by the winner of this contest that it was really difficult to make the award. The decision, however, does not in any way reflect on those who have failed to win a prize, for cameras sometimes fail to portray physical characteristics to advantage.

The prime object of this contest was to arouse interest in the development of superior specimens of babyhood. We have frequently published articles on this subject, and have tried to show as clearly as possible that a baby might just as well be strong, ruddy and healthy as weak and sickly. Although it may seem a startling statement, it is nevertheless true that if a baby is born with sufficient vitality to breathe, it should, unless accident befall it, when it grows to adult life possess at least a normal degree of health.

Babies should be healthy, strong, happy, and pleasing to look upon. In practically every case where these characteristics are lacking, the cause can be laid to ignorance, incompetence or carelessness on the part of those in charge of the little ones. There is no knowledge that is so tragically needed at the present time as that which appertains to the building of health and strength in the bodies of growing babies. The care of the babies is left largely to precedent and prejudice. "Grandma did this or that,

and what was good enough for grandma is good enough for me. I was raised under such and such conditions, I was given paregoric and catnip tea, and soothing drugs, too. I managed to grow up and possess satisfactory health, and my children should be able to thrive under similar conditions."

Right here is the need for some independent thinking. It does not in the least matter what has been done before, or what Mrs. Smith, or Mrs. Jones, or Mrs. Brown may consider essential. What a mother should do is to sit down and carefully reason with herself. If she does not have the ability to reason, she should investigate the theories of those who believe they have reached conclusions as to the best methods of raising babies, and after you have become thoroughly familiar with these theories then begin to choose the points that appeal to you. In other words, acquire an education that enables you to use what might be termed common, horse sense, in the care of babies.

Now let us, first of all emphasize, as strongly as possible, that a baby must have a plentiful supply of pure, out-door air. A baby cannot thrive on poisoned air. It cannot grow healthy and strong on air that has been breathed over and over again, that may have passed in and out of its own lungs half a dozen times. It simply poisons itself under such circumstances. The baby should have fresh air and plenty of it. You really cannot give him too much fresh air. If he can live or sleep out-doors, so much the better. The more nearly the quality of the air he breathes approaches that of the pure outside atmosphere, the stronger and healthier he will become. If you are afraid of a draught on your little one, then he must suffer because of your piti-

ful ignorance. Indeed it is more than pitiful that a poor, little, innocent human mite must be deprived of that which is food and health and life, one might say, because of a mother's or a father's gross ignorance. A draught never has hurt a baby and it never will hurt one, and thousands, yes, I venture to say millions, of little ones have struggled and suffered and gasped, solely from the want of life-giving oxygen. The circulation of a newborn baby is as a rule far better than your own. Although it is not advisable to expose it to the cold, it should nevertheless be supplied with pure, out-door air; no matter how young it may be. As long as the body is kept warm, with a sufficient amount of clothing, there is not the slightest danger of catching cold. In fact, even if the body is not kept warm if it is not over-fed or the blood filled with poisons of various kinds, a cold cannot possibly result.

Now let us pass to feeding. We will take the errors that are made in the care and development of these little ones in the order of their importance. First there is air, for air is food. It furnishes the oxygen that is needed to sustain life. It is more important than anything else. Then comes food. Without food life may be maintained for several days, or sometimes several weeks, but you cannot maintain life for two minutes ordinarily without air. Milk is, of course, the natural food of the growing infant. It should have all it needs, or in other words all it can digest, but no more. Milk that is not digested simply loads the system with impurities and makes colds and many other diseases far more easy to acquire. Naturally the mother's milk is far more wholesome for the little one. Cow's milk may be ever so good, but the nourishing elements are not properly proportioned to satisfactorily feed a child. Modified milk is an improvement over ordinary cow's milk but after all, no matter how perfectly it is modified, it is not equal to mother's milk. If you are compelled to seek substitutes for the mother's milk, then cow's milk is perhaps the best.

There are various methods of feeding the child that can be successfully used, but I believe about the best and the sim-

plest of all formulas for those who are feeding infants deprived of their normal nourishment is supplied by the whole milk that comes from the cow, though half way between each feeding of milk there should be given whatever quantity of water, sweetened and made palatable by the addition of sugar of milk, that the little one may be able to take. The average mother believes that her child will not take water. It is easy to teach the baby the habit of taking water, provided it is properly sweetened. In your first endeavors to give the little one a taste for the water it may be necessary to sweeten it with ordinary sugar as well as sugar of milk, but this should not be used as soon as the baby has acquired the habit.

For the first two or three months of the little one's life it may also be of advantage to use about double the quantity of cream that is ordinarily found in cow's milk. When Jersey milk is used, it can usually be fed the child as it comes from the cow. After the second or third month, however, plain cow's milk should be used.

One feeding every two and a half or three hours for the first month or two of the child's existence can be recommended. There has been much contention between authorities as to whether or not the baby should be awakened to take its food, in the event that it is sleeping at feeding time. I do not think the matter is of great importance, but, as a rule, I think the little one should be awakened for his food, as he then becomes accustomed to being fed at regular times and in most cases he is awake and ready for it. After two and a half or three months of age, the feedings can be given every three or four hours, and the intervals between meals gradually increased, until, when from six months to one year old, there is no need of feeding the little one more than four times in twelve hours.

After the age of three months is reached or even before that time, the habit of sleeping throughout the entire night without a feeding should be cultivated. If it is found difficult to satisfy the baby without a feeding at night, simply substitute water for milk, and he will soon get out of the habit of wakening.

As long as he is securing nourishment in the middle of the night, he will awake for this feeding, but by filling his little stomach with water in the manner suggested he will be satisfied and will finally sleep throughout the entire night without awakening. The water taken by the child should be at just the same temperature that the milk is used, and should be given in a bottle. If the baby is accustomed to taking the breast, water given in a bottle occasionally is of advantage. If the child is healthy and growing satisfactorily, the water is not especially needed, although a spoonful can be given now and then under such circumstances advantageously. Should any sickness intervene, however, and if the child does not develop properly, the addition of water to the extent of its desires can be recommended.

As to the quantity of nourishment that should be provided infants of varying ages, I would say that I am very much disinclined to give tables, because there is a vast difference in the quantity of food that various infants can properly digest. If you will simply follow the rule of giving the child at regular intervals all it will eagerly take, you can nearly always rest assured that it will be properly digested. When the baby begins to play with its bottle or it is a little bit undecided whether or not it wants the milk it is then time to stop. Under such circumstances the food should be taken from the child, and it should not be allowed any more at that meal, nor should any nourishment be given until the next feeding time. If this policy of stopping when the child begins to lose its ability to thoroughly enjoy the milk, is always followed, the little one will have a splendid appetite for every meal, the digestive organs will be ready and eager for the nourishment and digestion will be satisfactorily performed.

The clothing problem is not by any means the least of importance in caring for the baby. The average little one is coddled to death, or at least greatly weakened by the many thicknesses of clothing that the average mother considers essential. I want to most emphatically aver that the less clothing a child wears, the stronger and healthier it

will become, provided, of course, bodily warmth is maintained. When you pile on unnecessary garments you actually starve the little one's skin, and the pores cease to act properly. Under such circumstances the internal functional organism is compelled to eliminate many poisons that would otherwise be thrown out through the pores. Then, too, the clothing is a great handicap to muscular movement. Did you ever note the delight of a child when it is unhampered by bands or restrictions of any kind? The world as a rule seems a joy to him under such circumstances. As a rule he will smile and crow with delight, he will kick his little legs, swing his arms and fairly revel in the joy of the moment. Clothing is an abomination to a baby. Whatever clothing is worn by little ones should not in any way hamper their movements. It is these movements which develop the muscular system, which make it grow healthy and strong. When the body is allowed to be used in this manner it is as a rule beautiful to look upon. But when tight bands of various kinds interfere with the circulation and hamper the ordinary desires for activity that are possessed by every baby, its growth is materially affected and various ills are contracted that would never have appeared if the little one was allowed the freedom to which it is justly entitled.

There are various ills from which babies are inclined to suffer and for which numerous remedies are prescribed, that might easily be avoided if the general vitality of the little one was allowed to fully develop. There is one suggestion for the treatment of these ailments that in nine cases out of ten can be successfully applied. When the baby is suffering you can depend upon it that the trouble is in the alimentary canal, that is the stomach and bowels. Babies rarely suffer from any other troubles. Now if you will take an ordinary towel and wet it in water as hot as can be borne by the little one, and after wringing it out place it all around his little abdomen, you will really be amazed at the relief that will usually be secured through this simple remedy. The towel should be made to fit fairly snugly, and should come from the hips to a little bit under his arm-

puts. Remember it should be just as hot as can be borne by the little one in order to get the best results, and if you do not notice a decided change in his condition after awhile, it is well to change the towel and make it a little hotter than the previous one. As a rule, after the first application of this remedy the little one will become quiet and will soon fall asleep, no matter how much it may have been suffering previously.

In many cases constipation is one of the causes of abnormal manifestations, and where you are satisfied this trouble is a contributory cause a rectal oil enema (or if this cannot be taken a water enema) is a splendid remedy. It is also a good plan in many cases to feed the child one or two teaspoonfuls of olive oil, but remember that while the little one is sick, while there are symptoms of illness, no nourishment of any kind should be given. You can give the baby all the warm water that it may desire, allowing it to fill up to its heart's content, and after having passed its first birthday a little apple juice can be mixed with this water, or any acid fruit juice which is fresh or which has not in any way started to ferment can be used. The result of its use will in nearly all cases be favorable. To a certain extent the fruit juice satisfies the craving for food, and the child does not feel the pangs of hunger.

I know the average mother is under the impression that unless her little one is being fed every two or three hours it is actually starving to death. There was never a greater fallacy. My own little ones have fasted from one to four days, and on every occasion these fasts seem to be of benefit. They had the measles recently and the disease was cured entirely in two or three days. In fevers of various kinds and in measles, sweet apple juice mixed with hot water and given to the little one just as you would the milk seems to have a very beneficial effect.

Now there is a great deal to say in reference to exercise. Remember that it is not a good plan to force little ones to exercise. It should always be play to them. In fact, exercise should be given in the form of play. A set system of movements for a child is of course difficult if not impossible to follow, and yet

even if it were, it would not be the best sort of exercise under the circumstances. Holding a child up by its arm, or one arm and one leg, handling its body in various ways, can be recommended. As long as the child is laughing and enjoying your efforts, it is being benefited; but when it is cross and irritable you can rest assured that there is a possibility of your efforts bringing unsatisfactory results. An unlimited number of play exercises can be devised by a parent, and a regular "romp" should be indulged at frequent intervals. By the way, it might be well to note also that parents will secure considerable benefit from this habit. It takes them back to their childhood days, they learn to play over again, they become children with their children, and I firmly believe that to a large extent it brings back one's youth and materially lengthens one's years of life, when one gets right in the midst of the fun and frolic that should be a large part of exercises of growing babies and children. As a rule, if you will remove all restrictive clothing from a baby it will not need any special attention in the way of exercise. It will perform its own exercises and its body will grow strong and rugged through the influence of its own instincts as if kicks and twists and turns throughout its entire waking hours.

Now if you want to see your baby thrive as it never has before, try out a few of the suggestions I have made in this article. It cannot hurt the little one to follow the advice here given, and if the child does not exhibit a marked improvement I shall be much surprised.

In conclusion, I urge the reader to remember that a child can develop an attitude of habitual crossness, and can continually be crying and grumbling, but if you train it in the proper manner it will be inclined in the opposite direction. It will always be bright and smiling. Therefore do not spoil the little one. Do not take it up and fondle it every time it appears to complain. In fact, the habit of rocking or jumping babies should be strongly condemned. You should teach your little one to acquire the habit of going to sleep at regular hours. Cradles should be tabooed, and the child should simply be placed in an ordinary flat bed.

Some Comments on Weight Lifting

By Prof. H. W. Titus

TO THE EDITOR:

Although strong men have been challenging each other for years and years, they apparently seek advertising rather than tests of strength. When Sandow first arrived in America, in 1892, he offered \$10,000.00 to anyone who would duplicate his feats. No one attempted to meet this challenge, which was open for five years. Romulus, who came to America to gain fame and fortune as a weight-lifter, afterwards challenged Sandow, but failed to meet him when his challenge was accepted.

Meanwhile the writer was preparing Rolandow to meet Sandow, and when Rolandow was willing and able to defeat Sandow the latter refused to compete for the \$10,000.00, but still declared himself to be the world's most perfect man. This gave Rolandow the title, by default, of the strongest man in America.

The Saxon Bros., who were recently described in PHYSICAL CULTURE, are unquestionably very strong and well developed men. While they were performing at Madison Square Garden, a few months ago, I acted as a judge of their feats of strength. I must say that Arthur Saxon broke the world's records by a one hand press from shoulder over head lifting $312\frac{1}{2}$ pounds, and by pushing 150 pounds in each hand over head, one hand after



One of Professor Titus' feats.

the other, holding both of them over head simultaneously. These two are the most marvellous feats I ever saw.

Rolandow after advertising himself as the world's strongest man for about two years was defeated by Anderson, the Swedish strong man, by one point. Two years later Rolandow defeated A. Johnson. Rolandow had improved greatly, and could have defeated Anderson easily if he had been given another chance, but Anderson declined to meet him again.

Now the question is, who is the stronger man—Rolandow or Arthur Saxon? Each of these two men holds four world's records. Max Unger challenges Arthur Saxon. Rolandow is the only strong man who ever consistently met his challengers. Let Max Unger challenge Rolandow, and he will have no trouble in making a match if he produces enough money to make it interesting. In response to Max Unger's recent challenge I will wager \$500.00 on Rolandow or any one of the Saxon Bros., each competitor to choose ten feats of weight lifting, and the total number of pounds lifted to determine the final results.

I have a pupil named James Barnes, of Ambridge, Penn., He is nineteen years old, and weighs 180 pounds. He is also willing to accept Max Unger's challenge.

The writer, when in condition, weighs 128 pounds, and has been the champion strong man of that weight for twelve years. I was always ready to meet all comers, and if Max Unger or anyone else can get a match for me I will give \$100.00 for a \$500.00 match at my weight. I have proven that I am the strongest man on earth in proportion to my weight. I pressed with one hand $186\frac{1}{2}$ pounds while weighing only 125 pounds. Arthur Saxon pressed 312 pounds, but weighed 220 pounds. He should accordingly at his weight press about 350 pounds to equal my performance. I swing with one hand 150 pounds from floor over head—is there another man who can swing the equivalent of his own weight overhead? I also hold out one-half of my own weight at arms length in each hand.

One who makes up his mind to become a professional strong man must stick to exercises, and time will tell. First of all one must have youth. Next, one must have the frame and weight—if you weigh 105 pounds do not think that you are fit for a strong man, although you can improve greatly by exercising properly. A man can improve his physical condition up to fifty years. After that age all is necessary is to exercise enough to keep the blood in proper circulation—about thirty minutes every other day.

New York City.

PROP. H. W. TITUS.

Cancer Causes More Deaths Than Consumption

CANCER, SO IT IS SAID, NOW CLAIMS A LARGER NUMBER OF VICTIMS THAN THE GREAT WHITE PLAGUE—THE DISEASE CAN BE PREVENTED AND CURED BY PHYSICAL CULTURE METHODS

By Henry Winston Hardwick

In previous issues of this publication we have maintained that the symptoms of cancer were made possible by the existence of the cancer poison in the blood, that operative methods were never effective in removing the poison, that as a rule they simply diverted the poison to other regions of the body, and that a complete cure could only be effected in the first stages by the simple methods we are advocating. It is pleasing to note that these theories are being advocated by reputable medical men, and the following article will unquestionably be of interest to those who believe in our theories.—Bernarr Macfadden.

THE figures compiled by a prominent physician of this country, and furnished by him to the County Medical Society of Philadelphia, go to prove that cancer and not consumption is the "White Plague" of civilization. Dr. John A. McGlenn is the individual who has been making an exhaustive investigation of the malady in question, and the data collected by him go to show that the ravages of cancer have enormously increased within the past few years, so much so indeed, that they have assumed the aspect of a plague. Incidentally, it is made evident that the terrible malady is encouraged if not produced, by dietetic conditions against which PHYSICAL CULTURE has consistently protested. Testimony regarding this latter fact will be given in the course of this article.

The report of Dr. McGlenn in a condensed form is to the effect that on the average, one man out of thirty-two and one woman out of eleven now die in the United States of the malady. But this is taking the deaths without considering the respective ages. If the ages of the victims are analyzed, the figures become the more startling. Thus after the age of thirty-five, one man out of seventeen, and one woman out of nine, die of cancer. During this period of life, more women die of the disease in this country than they do of consumption, according to the vital statistics of the various states.

But the age of greatest frequency for

the occurrence of cancer has, within the past few years, come to be between the ages of fifty and fifty-four. At such age, one man in fourteen and one woman in five succumb to the disease. On this basis, it is computed that if it had been possible to exterminate the disease in the United States, in 1906, the lives of 518,000 females and 282,000 males would have been saved. The "time" that these lost lives represent is 373,574 years, while the earning capacity of the lives is estimated at \$224,000,000. The loss to the community on these latter lines alone is striking enough without taking into consideration the grief of the survivors and the agony of the victims.

Another fact will emphasize the general prevalence of the malady. The combined death-rate for all surgical conditions exclusive of cancer, in 1908 was 161.5. The cancer death-rate in the same year was 70.8. From which it will be seen that one third of the deaths from all surgical conditions were due to cancer.

Another illustration: In 1908, the combined death-rate from all preventable diseases was only 6.4 per cent. higher than that of cancer.

Data obtained from all over the world goes to show that the disease is increasing in alarming fashion in every civilized country with but one or two exceptions. These exceptions are those in which physical culture diet is the rule or nearly so. In the last decade and in the world at large, it had increased 12 per 100,000

as compared with the preceding decade. But in the United States and within the same period, it increased from 53 to nearly 71 per 100,000 of population.

In Great Britain, at the present time, one man out of eleven and one woman out of eight die of cancer. In the same country more women of all ages die of the disease than they do of consumption. Inasmuch as Great Britain is looked upon as the home of tuberculosis, the appalling meaning of the statement just made will be apparent.

To such a pitch has the scourge attained here and in Europe, that it has been recently proposed to call an International Conference to deal with the causes and cure of the malady. As readers of *PHYSICAL CULTURE* know, cancer has so far baffled the skill of the surgeon or the specialist. Great things were expected of the *x*-rays, of anti-toxins and so forth. But in each and every instance, these hopes proved to be fruitless. The reason of such disappointments was, in the opinion of the writer, of an obvious nature. The attempt was made to deal with symptoms rather than with the causes of the disease. The knife cut away the results of conditions, but the conditions remained. What were these conditions? According to the investigations of men who have broken away from the traditions of the medical schools they were the results of the dietetic vices of civilization, to which were added the harmful habits that were coincident with the vices. In other words, the investigators appear to have reached the conclusion that cancer, as well as its allied diseases, is, in the vast majority of cases, due to the excessive use of certain foods

against which *PHYSICAL CULTURE* has raised its voice in protest ever since the first day of its publication. The allusion is to tea, coffee, alcoholic drinks, tobacco, much meat, especially pork and a "rich" dietary in general. It is true that there have been instances in which cancer is said to have been produced by the contact of the skin with soot, paraffin, a rough pipe stem, a sharp tooth, a recent wound or the chewing of betel-nut, but such cases are rare, and, too, is it not more reasonable to believe that these causes were really incidental than that the real cause was the existence of the cancer poison in the blood that was made evident by the bruise or other irritation which seemed to be the actual cause. In any event the assumption is not altogether proved that cancer is actually caused by the action of an irritant, though it may be the means of first betraying the existence of the disease. This being so, light is therefore thrown on the manner in which an unwholesome dietary can cause the malady.

Let us quote a few of the investigating authorities, some of whom have spent years in the researches in question. It may be proper to remark that the consensus of opinion on the part of these gentlemen is to the effect that cancer can be cured or prevented by a strictly physical culture régime.

Professor H. R. Russell, of London, has collected data relative to the scourge of cancer from nearly every country in the world. His figures are of a significant nature, furnishing, as they appear to do, absolute proof of the relation between the disease and some of the habits of our modern civilization. Here they are:

	NO. OF COUNTRIES	VERY HIGH OR HIGH RATE	RATE LOW OR NONE
Countries eating flesh-foods largely.....	25	19	1
Countries eating little or no flesh.....	39	None	34
Countries drinking much coffee or tea.....	30	25	None
Countries drinking little or no coffee or tea.....	41	None	36
Countries using much tobacco.....	41	None	6
Countries using little tobacco.....	8	None	7
Countries drinking much beer.....	17	12	1
Countries drinking little or no beer.....	44	5	31
Countries drinking much spirituous liquor.....	19	14	1
Countries drinking little or no spirituous liquor.....	30	None	23

It will be seen that while the list is incomplete in a few instances, yet it is enough to prove the contention of Pro-

fessor Russell as indicated. Of such countries, those that suffer most from cancer are the United States, Great

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Britain, Germany, Denmark, Austria, Hungary and Bulgaria. Then comes France, Sweden and Holland. In the other European countries where the habits of the people tend to frugality and wholesome dietetics, the cancer rate is invariably small.

In some of the cancer-cursed nations, the ravages are confined to certain sections. This, according to Professor Russell, is entirely due to the varying dietetic habits of the people in the different districts.

Speaking in regard to the prevalence of cancer in the country districts of Ireland, Dr. F. Climbo, of Dublin, says: "Once on a time, our people lived on what the country produced—wholesome oat-meal porridge, potatoes, milk, fish, fruits, home-cured bacon and the like. Nowadays they subsist on cheap American bacon, white-flour pancakes cooked in bacon fat, and quantities of tea that has been boiled over and over again. The use of porter and tea is a curse to the country. It is this unwholesome food and drink that is, as I believe, the direct cause of cancer."

Dr. W. C. Lawson, in the *Medical Journal*, writes that "cancer is common nowadays because civilized communities lead hurried lives and are addicted to the use of stimulants and flesh-foods."

A well-known Welsh physician, Dr. Douglas Macdonald, of Bettsycoed, alluding to the increase of cancer among the Welsh, says: "The Welsh peasantry live chiefly on bacon and tea. The consumption of these foods has increased with the increase of cancer."

Sir William Banks, another British physician of high repute declares that the most numerous victims of cancer are "high livers, consumers of much meat, coffee and alcohol."

Professor Traill, of America, asserts that "Diet and the hunger cure are the indispensable and perhaps the leading remedial measures in all cases of cancer."

Dr. George Black, a specialist of Torquay, Devon., England, avers that by putting his cancerous patients on a diet of nuts, and vegetables, fruits and grains, he "obtained results for good the like of which I have never experienced in twenty-four years of practice. Also,

they were such as I had never dreamed possible."

Professor Newcombe, of Washington, D. C., declares that the cure for cancer is to be found in the avoidance of tea, coffee, alcoholic liquors, all flesh-food and their products such as beef-tea, dripping, lard and suet. He also recommends two meals a day to patients.

One of the most prominent members of the French Academy is Dr. Lucas Champoinniere. He has officially reported that cancer "is largely due to consumption of much flesh-food."

Professor Elsworth Olesen, of Sweden, advises these things for the prevention of cancer: "Out-door exercise, pure air, sunshine and a vegetable diet. Alcohol, tea, coffee and a rich, greasy diet are to be avoided."

Two French scientists who have been investigating the disease declare that it is, to a very great extent, due to the use of pork. They point to the fact that those Jews who live in accordance with the Mosaic law and who use no pork in consequence, rarely contract the malady. The same remark applies to Arabs, the Indians of Old Mexico and some other races.

Dr. Vermeuil, of Paris, states that his observation convinces him that the regular use of flesh-foods is conducive to the contraction of the disease.

Dr. Richard Keith, of London, a surgical specialist, avers that "high living, wine and animal food aggravate in a remarkable manner all the symptoms arising from this terrible disease."

In a special official report on the spread of cancer in Ireland, prepared by the Irish Registrar-General, the conclusion is reached that "the growing increase of the disease among the population is due to the enlarging use of potted meats, imported pork, beer, tobacco, tea, and coffee."

A correspondent writing to the *London Times*, says, that both his parents and nearly all his relatives died of cancer and that of the farmer families in the county in which he was born, the diet consists for the most part of ham, bacon, tripe, trotters, wine, beer and much tea and coffee.

Professor Russell in one of his recent

works writes, "The two most potent factors in the cause of cancer appear to me to be a large amount of flesh food and strong infusions of tea or coffee, taken together. That is, whenever much flesh or other rich proteid food and much tea and coffee are simultaneously taken, there will be much cancer."

In other words, anybody can escape the malady by living a physical culture life.

Yet in China, the home of the tea drinker, the cancer mortality according to Professor Russell's researches, is only "moderate" as compared with the "very high" of many of the European countries. This is explained by the fact that in China the tea so drunk is very weak, and that only a few seconds are allowed for its infusion. In other respects the Chinese lead a frugal dietetic life. In this connection it is pointed out by Dr. C. R. Raleigh, of Boston, Mass., that "we of the Occident use tea that, for the most part, has destructive strength, and which is quite unlike the light beverage used in the Orient."

Dr. Arthur Shadwell, a prominent Irish physician, in a report on cancer states that some of the women patients treated by him confess to twelve cups a day of Indian tea "very black and strong."

In Sweden, during the past thirty years, cancer has increased so terribly as to almost assume the character of an epidemic. Within the same period, according to official figures published by the order of the Swedish government, the use per individual per annum of coffee has increased over three times; that of sugar nearly five times; of tobacco, rather more than one and one-half times, and of beer three times. In other words, the spread of the disease seems to have accompanied dietetic degeneration.

Cancer is extremely prevalent among the lumbermen and settlers of the West and Northwest, according to Dr. Ernest Wolff, of Detroit, Mich. Mr. Arthur P. Silver, in his book on the backwoods of Canada, states that the diet of the lumbermen consists of buckwheat cakes and molasses, potato pie, baked beans, bread, pork, and bacon, while "tea black as ink is used in vast quantities, and sweetened

with molasses." Here is the combination of an excess of stewed tea, pork, and an excess of sugar against which Professor Russell protests on the score of its being productive of cancer.

The famous physician, Sir William Banks, in the course of a series of lectures before the Medical Society, of London, declared that: "An excess of nutritives was the cause of cancer, and that the inception of the disease was almost always to be found in the rich meats and wines of the dining room tables of civilization."

A well-known Canadian authority on dietetics, Mr. Joseph F. Percielle, of Toronto, declares that: "In every case of cancer which I have been able to investigate I find that it has been produced by an increase in the amount of meat and tea and coffee consumed, and often of beer and tobacco also."

On the other hand, and in proof of the soundness of the theory of the scientists quoted, it is found that all the communities or nations which use little meat, tea, coffee, tobacco, or intoxicants, are singularly free from the disease. The majority of such people are so-called savages, are semi-civilized, or are still living under primitive conditions. Some of such are the Mussulmans, in Egypt, the Tunisians; the inhabitants of Morocco, Syria, Arabia, Hindoos in general, natives of the West Coast of Africa, of the West Indies, the Pacific Islands, Japan, New Guinea, New Caledonia, Peru, Persia, and so forth. In all these cases the people live the simple life in a dietetic sense.

It is also observed that in any community such as a monastery, or religious association in which the diet is of a temperate and frugal nature, cancer is extremely rare.

The Paris Anti-Tobacco Societies, whose headquarters are at 12 Rue Jacob, in the French capital, have recently announced that the subject for prize competition this year is "Report of observations showing that smokers more than others are subject to cancer."

Physical culturists may congratulate themselves on the fact that their methods of living are such that they need never dread this most fearful disease.

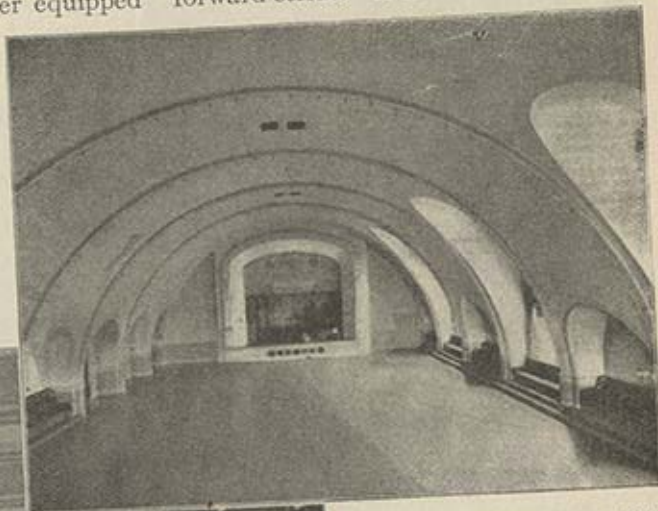
Phenomenal Success of the Physical Culture Training School

THE SPLENDID SCHOOL WHICH TEACHES THE PRINCIPLES OF PHYSICAL CULTURE MOVES INTO A MAGNIFICENT NEW HOME

By Charles Merriles

THE Physical Culture Training School, which for some time has been located in Battle Creek, Michigan, has met with such phenomenal success that it has been found necessary to move to larger and better equipped quarters. The demand for men and women capable of teaching physical culture principles is continually increasing. For many years to come the number of those capable of doing this work will not be equal to the demand. Teachers are needed everywhere. Doctors of Phys-

Bernarr Macfadden Institute, and it has grown slowly but surely year by year. Within the magnificent new building which has just been secured in Chicago, it will undoubtedly make a tremendous forward stride. It is the business of this



Grand lecture hall, 116 feet by 65 feet, seating capacity, 1500. Here, some of the drills will be given.



This large room, 90 feet by 60 feet, and 36 feet in height, is to be converted into a gymnasium.

cultopathy, who can treat diseases of every kind by the simple methods which constitute this science, are needed in every community.

The Physical Culture Training School was originally the outgrowth of the

school to prepare teachers who are capable of going out into the world and teaching the principles of physical culture, in accordance with the scientific theories promulgated in this publication since its first issue. Physical culture, as taught in this school, is broad and complete. The course of studies is not hampered by medical theories. It is based on fundamental principles, that have to do with the increasing of vitality and strength

and purifying the body. Disease has no terrors for true physical culturists. The germ theory is an empty threat to them, for they believe that a strong body is practically made immune from all disease. Students are not only theoretically instructed on this basis, but the thousands of practical exemplifications with which



View of the ladies' parlor.

they come in contact turn this theory into a fact long before they have secured a complete physical culture education.

The students in this school have come from all parts of the English-speaking world. Many come here from England. They come from the east and from the west and from the far northern sections of Canada. The remarkable physical improvement effected by some of these students, in a short time, have been set forth in advertisements which have appeared in past issues of this publication. Weak, emaciated young men and women, in many cases, gain from ten to thirty pounds while continuing this course, and this is not a gain in fatty tissue—it is a growth of hard, firm muscle. They add that much to their manhood or womanhood.

The curriculum of the school includes all the various subjects that are neces-

sary to those who are desirous of teaching the science of strength-building. Anatomy and physiology are naturally taken up in detail, though diet is treated from an entirely different standpoint than in other schools. The science of rational dietetics has practically been revolutionized by the theories that have been put forth in this magazine. There is considerable instruction given in diagnosis, hydrotherapy and massage. Gynecology and obstetrics are also dealt with in a small way, with a view of giving graduates a general view of all the functional processes of the body.

The practical work of the school has to do with muscular exercises, with the strengthening of the muscles, with beautifying the body. The remarkable changes that are made with students within even a few months in this institution would be



A glimpse of the general parlor.



The main floor, showing the broad stairway leading to the second floor.

difficult to equal. In fact, a graduate of one of the most prominent eastern physical culture normal schools claims from personal knowledge that students make more improvement in six months while attending this school than they do in two years in the school first attended by this student. This unquestionably shows the remarkable influence

of the radical change in diet which is adopted by students on entering this school.

The problem of living expenses has been to a large extent solved by students, and the dietetic régime that they follow would be a godsend to various colleges where all sorts of food combinations are considered necessary to the students. Here nearly all students live on uncooked foods, and although when following a diet of this character your expenses can be as liberal as desired, many students who are compelled to be economical have, by following the uncooked food régime, been able to keep their expenses for food down to a dollar a week or less. And note that while continuing this very abstemious régime they still proceed to gain in weight and strength at an amazing rate. By forming clubs

students have been able to reduce their housing expenses to almost as small a sum, that is about one dollar a week. The possibility of living on \$2.00 a week for board and room throughout the year would be considered by the average individual as unattainable, but it has been accomplished by numerous students of this school. This result has been made possible by the knowledge of diet they have secured, not only from the teachers themselves. Nearly every student indulges in all sorts of experiments with a view of learning as much as possible regarding diet, and naturally the information each student acquires is made the common property of all other students.

The new building will give the school a magnificent new home. It will contain a gymnasium 90 x 60 feet, with a ceiling two stories in height. A large swimming



This magnificent building, located at 42nd street and Grand Boulevard, Chicago, is to be the new home of the Physical Culture Training School.

pool will be provided and every facility for the accommodation and convenience of students will be found therein. There is a large lecture hall in the building in which public lectures and entertainments will be given. This hall will seat over 1500 people. Previous to its acquisition by the school it was used very largely for a ballroom, and was said to be the most beautiful ballroom in the City of Chicago. The photographs reproduced in connection with this article give a faint idea of the splendid building which will, after

October first, be the home of the Training School. In addition to training men and women for this profession, it is the intention of the school to open its gymnasium to the general public, and classes for business and professional men, and for boys and girls will be conducted, giving one and all an opportunity to take advantage of the scientific methods of physical training that have brought about such remarkable results in the major portion of the school's students in the past.

Perfect Poise—The Continent Life

TO THE EDITOR:

One very important truth, which should be more universally taught, is that perfect poise of body goes hand in hand with perfect control.

In the correct sitting posture the weight of the body rests upon the thighs, not the end of the spine, with the chest lifted. After the habit is acquired, it is a restful position. The vital organs are left free to do their work. When the weight rests upon the end of the spine, they are cramped and hindered.

The correct standing position is with the weight resting upon the balls of the feet, the knees well back and the chest lifted. This brings the front of the hip and shoulder to a perpendicular line, and the spine from the waist nearly to the neck is also perpendicular. It is estimated that about ninety per cent. of men and women habitually poise their hips too far forward.

We learn from the best authority on physical culture that this imperfect position of the vital organs is the direct cause of physical thoughts, and the body becomes more or less incontinent in spite of the most strenuous effort of the mind.

With the organs perfectly poised the mind has complete control. Vicious thoughts disappear and the body becomes perfectly continent. A bit of my own experience may help some one who reads this.

For years I had most miserable health and about three years ago I became aware that my bodily poise was wrong and doing injury to my health. Under the instruction of a teacher I undertook the correction. I took daily exercises to help me "straighten up," and stood and sat as nearly correctly as I possibly could.

I was past fifty years of age and my habits were so hard to change. I had always kept myself pure but my body had been incontinent for many years. For three or four months my thoughts seemed to be even more carnal, then came the beautiful change. My thoughts ceased to be physical, and for two and a half years have I enjoyed perfect continence. My mind has had complete control and that too without my making any conscious effort.

I am as straight as any girl and almost as active. My friends say I am getting younger all the time. For years my life had been a burden. I hated myself. I wished there was no such thing as sex. I hated my reflection in the mirror. I often wished I could die. I was a constant sufferer and getting worse every year. Had nearly lost my brain power.

Now, I enjoy everything in life and feel as if I should do so till I am a hundred years old. I never have an ache or pain. My reflection in the mirror when I take my morning exercises and "dip" are a joy to me. I would not be back in the old slavery where I was three years ago for all the wealth of the world. My children think I am an extremist, but they cannot understand what physical culture has meant for me.

If those who read this may but take warning from my experience, or sound the warning to their friends who need it, I shall be happy. One should look into a glass sidewise or take the open door test so as to be sure that the hips are kept even with the shoulders. After the correction has been made, note how vulgar the old position is. Also note the difference in the faces of those who are well poised and those who are not.

V. R.

How to Produce a Vaccination Scar

Procure a little strong nitric acid. Bare the arm and have a piece of soft white blotting paper ready. Dip a tooth-pick in the acid and apply a drop to the spot on the arm where you want the scar. Let the acid remain three or five minutes, then touch it with a corner of the blotting paper. Wipe off carefully and cover with greased paper or oiled silk. After keeping

it protected a day or two no more attention need be given it. After a week or so the spot will turn dark. Then a sore will appear, this will heal, producing a scar very closely resembling a genuine vaccination scar.

WINSLOW W. CHASE.

66 S street, N. W. Washington, D. C.

A Pious Hypocrite

THE PRETENDED vs. THE REAL CHRISTIAN—THE CLOAK OF RELIGION USED TO SERVE MATERIAL PURPOSES

By S. Wardlow Marsden

Synopsis.—Samuel Jonathan Walker has for years received a comfortable income as the chief official of the Society for Moral Promotion. Mr. Walker's daughter Emily meets Charles Warner, a Y. M. C. A. Physical Instructor, and the young people become interested in each other, despite her father's prejudice and enmity against Charles. Horace Horton, a young man whose attentions Emily has tolerated at the behest of her parents, exhibits a strong enmity toward Charles. Emily Walker's father forbids her to acknowledge Charles' acquaintance, on the ground that the young man has proven himself low and vulgar by an exhibition of athletics, and by posing in tight at the Y. M. C. A. Gymnasium. Angered by his daughter's friendship for Charles, Mr. Walker determined to injure the young man's reputation. He hires a detective to pose as a physician, and to visit the Warner home under the pretense of treating Charles' little sister Edna, who is lame. Binwell, the detective, visits the former home of the Warner's, and reports to Mr. Walker and Horace Horton that Charles Warner has broken faith with a young woman whom he had promised to marry. Mr. Walker determines to use this information as a means of causing Charles to lose his position with the Y. M. C. A. The Secretary, however, declines to consider Mr. Walker's request, and learns that Charles was justified in refusing to wed the young woman to whom he had been engaged, because of her faithlessness. At the behest of Horace Horton, Binwell causes a pugilistic champion named Murphy to join the Y. M. C. A. Gymnasium for the purpose of testing Charles Warner physically. At an athletic exhibition held by the Y. M. C. A., Murphy the pugilist, in the guise of an amateur boxer, and under an assumed name, attempts to lower Charles' colors in a boxing bout, and is soundly trounced for his pains. Charles becomes more popular than ever with the members of the Y. M. C. A. While walking to his home one evening Charles Warner encounters two men who have attacked Horace Horton and Emily Walker, and from whom Horace Horton has fled in fear and terror. Charles feels one of the highwaymen with well directed blows, despite the fact that he is slightly wounded by a revolver shot one of the footpads fires at him. The fallen miscreant's companion takes to his heels. The second highwayman is also enabled to escape through Charles' inability to leave Emily in her terrified state. Emily overhears Horace Horton giving her parents a highly-colored version of the attack, and aroused by his unmanly conduct brands him as a coward. On learning of the part taken by Charles Warner in the rescue of his daughter, Mr. Walker renews his effort to break up the attachment between the young people. Charles and Emily meet frequently by appointment, and their friendship grows and ripens until they become secretly affianced. Mr. Walker astounds Emily and inflicts a shock upon her by reporting to her that Charles Warner's father is a murderer serving a life-sentence in the State Penitentiary. Emily meets Charles and tells him of the statements her father has made concerning the tragedy in the Warner family. Charles explains to her that while his father was guilty of the crime charged against him, it had been committed while he was insane from drunkenness. Emily is satisfied with Charles' explanation, and renews her pledge of her devotion to him. They are interrupted by Mr. Walker, who takes Emily to her home, warning Charles to cease his attentions to her. Mrs. Walker persuades Emily that a marriage with Charles Warner could only bring evil results to the young man, because Samuel Walker's unrelenting hatred toward him would pursue Charles forever. Emily finally concludes to accede to her mother's request and pay a visit to a summer resort, and to separate herself from Charles Warner. She writes a short note breaking her engagement to Charles, but giving no details of her reasons for doing so. Charles is meanwhile oblivious of Emily's newly formed decision, and believes that she still intends to become his bride.

EIGHTH INSTALLMENT

CHAPTER XV.

ON the morning of the day following his meeting with Samuel Walker, Charles Warner was seated on the piazza of his home. He had risen early and had busied himself in various duties about the lawn and garden. Charles delighted in an evenly cut and well-kept lawn. He and his mother had spent a great deal of time caring for the flower-beds located in the grounds surrounding their modest home.

Charles felt very well satisfied with his affairs that morning. He had overcome Emily's scruples, and she was to become his wife in spite of all her father's efforts to the contrary. As he sat there resting from his active labors a feeling of exquisite satisfaction swept over him. Notwithstanding the troubles of the past, a happiness that he somehow felt would be soul-satisfying was to come to him. It would enthuse his ambitions, it would

help him to climb to the greatest possible height in his chosen profession.

He had often talked with his mother about their future. Mrs. Warner was very happy when she heard of Charles' decision. She recalled the period of her own youth when love had come to her, and though her home-life had led to a tragedy, she was assured that Charles could not possibly make the mistakes that had wrecked her own home. Charles had received a lesson in temperance that no influence could ever make him forget. She knew that strong drink would never become a power in his life. Naturally there were moments when she was adverse to giving up her son. She realized that marriage would to a certain extent deprive her of much of the attention that he had devoted to her, but she was not selfish, and she knew that she would still hold much of the affection that he had given her since boyhood. After mature consideration she

did not in the least fear the advent of a new love. She felt that it would simply round out his life and make the possibilities of his future more complete.

Charles had been talking to his mother that morning about his prospects in life. They both seemed to feel that the sorrow and suffering that had previously embittered their lives were to fade into the background, in spite of the efforts of their enemies. Charles believed that when Samuel Walker discovered that his daughter was to become his wife, that his enmity would cease, that at least he would not continue his efforts to harm him. He knew but little of Samuel Walker. It would have been impossible for him to fathom the character of the man. The enmity of such a man would never be appeased. He was narrow and spiteful, and there was but one influence that would divert him from "getting even" with an enemy, and that was the knowledge that he would be harmed himself, financially or otherwise, through any efforts he might make. Samuel Walker was a coward at heart, and it was only through fear that he could be diverted from the pursuit of a supposed enemy.

While Charles sat musing of the joys that were to be his within the near future, the postman entered the yard and handed him three letters. He found among them a letter for himself. He immediately recognized Emily's handwriting.

What could she have to write to him?—he had seen her only the previous day. He hurriedly tore open the envelope and the note which Emily had penned the night before with tear-dimmed eyes was before him. His expression changed as he perused its contents. The joyous, satisfied look quickly disappeared. What! Emily going away, leaving him thus without giving him an opportunity to see her? Could she really be serious in her intentions to thus break off their engagement? Surely she had not given the subject the careful thought which it deserved.

His hand trembled as he read and re-read the note, trying to read between the lines, and to find a meaning not clearly expressed therein. To be sure, its tone was kindly, even affectionate, but the bare thought of losing Emily almost

overpowered him. Now that he had won her, that he had felt secure in the possession of her love, even the thought of the possibility of losing her was fearful. He recalled that yesterday she had decided to become his wife in spite of all parental opposition. But now she had changed her mind. What had brought about such a change? To be sure she had intimated that it was her desire to avoid bringing suffering and sorrow upon him that brought about her decision, but he wondered if there was some influence beyond this. Did she merely wish to lighten the blow that she knew would result from such a decision? These were a few of the thoughts that rapidly flashed through his mind after reading Emily's note.

While he was thus occupied, Mrs. Warner appeared at the door.

"What—a letter for me, Charles?" seeing the unopened letters he was holding in his hand.

"Yes, mother, two letters for you," he replied, strongly endeavoring to make the tones of his voice sound unconcerned.

"Why, son, what's the matter?" asked Mrs. Warner, as she came toward him. "A moment ago you were happy, even joyous, and now you are cast down. You are suffering, Charles; tell me about it," looking intently at her son who had averted his eyes to avoid her searching gaze.

"Oh, mother, don't ask me."

"You just now opened a letter. Did the contents bring this change?"

"Yes, there is no need of my hiding it from you," handing her the communication he had just received from Emily. She hurriedly read the letter.

"Ah, son, don't worry. You have nothing to be unhappy about. Does she not say it is because of her affection for you that she has decided to take this step? I feel satisfied if you can see her that you can convince her that your happiness depends upon her deciding otherwise."

"But she has gone, mother."

"I know, but you can find out where she is."

"That may not be so easy as you think. I am satisfied the Walkers will try to keep their destination a secret."

"Well, can't you write to her?"

"No, that would not be safe, as my letters would no doubt be intercepted. You must remember that her father has been in the business of detecting and punishing those who disobey a law that was enacted largely through his own personal efforts. He will stoop to almost any means in order to prevent our marriage."

"You have spoiled all his plans for what he considered a grand marriage into the Horton millions."

"I suppose I have. His ambitions are centered entirely around social and financial success, I suppose one can hardly expect anything but the fiercest sort of enmity from him."

"I wouldn't worry, Charles, at least until you secure more information. Maybe she is still at home and if she has gone surely you will be able to find some trace of her."

"I am glad to be encouraged, mother, for the news brought by Emily's letter was a terrible shock. After I had considered everything settled, to find that she had entirely reversed her decision was indeed disheartening. I will find out at once if she has gone, and if so will try to locate her." He arose while speaking, entered the house and in a moment reappeared.

"Now, son, don't lose courage. I feel somehow that everything will come out all right. Justice and truth are bound to conquer ultimately."

"I feel so too, mother, but it seems at times as though a hard battle must be waged in order for right to win." replied Charles as he hurried towards the street after bidding his sister Edna and his mother an affectionate goodbye.

The task that Charles had set for himself was far from being easy. On first thought he had no idea that it would be especially difficult, but the more he considered the difficulties with which he was likely to come in contact, the more confusing the situation appeared. He had never required the services of a detective, but he began to believe that in this instance he might need one, at least if he expected to locate Emily promptly. Where was he to go and how was he to begin the work that was before him? He

could not visit her home and openly make inquiries. He finally decided that he would do nothing until he learned whether she would see him that evening at the particular time at which they were in the habit of meeting each other in the park.

He went about his regular duties in the gymnasium during the day in a confused mental state. For the first time his students doubtless found in him a pre-occupied and disinterested attitude. He was always so full of enthusiasm, so interested in his work, that a change of this kind was, of course, easily noted. During the entire day the question "Will Emily meet me?" recurred to his mind on a hundred occasions. He felt certain that she would not. He sought their trysting-place considerably ahead of the usual time. He was anxious to learn what was before him. He was not in the least surprised when Emily failed to arrive at the appointed time. He waited but a short while thereafter and during the time he was preparing his plan of action. He had considered various plans, but the most feasible one was to in some manner approach the servants at the Walker home, as he felt sure that they would have some definite knowledge of Emily's whereabouts. But how was he to communicate with the servants? He knew it would be folly to approach them at the house, for they had undoubtedly been warned not to give out any information, and he soon realized that he would have to do a little detective work on his own account in order to secure the information he was seeking. He turned his steps in the direction of the Walker home. As he approached the entrance he saw that the house had every evidence of being unoccupied. In some of the windows the shades were apparently tightly drawn, the outside storm doors were closed, and the general appearance of the house in every way made it look as though it were untenanted. Surely they had left a caretaker there, was the thought that occurred to him, and he was about to run the risk of making personal inquiries when it occurred to him that he might be recognized and arrested for trespassing. In fact, Samuel Walker might have prepared for that very emergency.

"But what am I to do?" he inquired of himself again and again. It occurred to him that he might have inquiries made in Mr. Walker's office, but there, too, he felt that information would be hard to secure. He boarded a car, and after a long ride arrived at a convenient distance from Mr. Walker's office. He did not visit the office himself, as he knew that would be useless, as he would be quickly recognized by Mr. Walker's assistants. He found a bright young man and sent him to the office to make inquiries. He returned in a few moments and reported that nothing could be learned of Mr. Walker's present location. He had left for a vacation and was not expected to return for several days.

Charles was puzzled. How was he to secure the information that he was seeking? There seemed to be no solution at hand. Nevertheless during the entire trip homeward he was diligently seeking a plan that would give him the necessary information. The activity of mind required by his efforts helped to lessen the acuteness of the mental suffering occasioned by Emily's absence. The world seemed empty and forlorn to him. From the time he began the habit of seeing Emily each day he had depended on this meeting. It seemed to him since her absence that he had almost lived upon her presence.

Charles, however, was not of a nature that would sit down and wait. He believed in using every atom of energy that he possessed in seeking that which he might desire. He felt satisfied that he could find Emily and secure an opportunity to talk with her that he would be able to induce her to accept his views. Anyway, he was fighting Samuel Walker, and he never remembered meeting a man that he detested more heartily. In his opinion Emily's father was taking every unfair advantage of him that he could possibly unearth. The disgrace connected with his father's imprisonment he felt should not have been used under the circumstances. Samuel Walker, however, was not especially particular about what he might do to accomplish his purposes, and as Charles was yet to learn, he was capable of stooping to still more dastardly methods in effecting the results he

might desire than he had been guilty of previously. If Charles had had a definite conception of the vast reward that Samuel Walker was working for, he might have been more on his guard. He simply looked upon Horace Horton as a rich man's son. He had no idea of the vast wealth possessed by the Horton family, and, of course, could not for a minute conceive of the great social advancement that would come to Mr. and Mrs. Walker because of Emily's marriage to Horace. If he could have glanced into the innermost recesses of Samuel Walker's individuality, he would have learned that to him the consummation of this marriage was a life's greatest ambition. Charles Warner was simply a minute atom that stood in his way. If Charles had known the man better, he would have known that he would take any step, that he would sacrifice him or a hundred more like him, if necessary, in order to insure this marriage that meant so much to his future aggrandizement.

Charles had quite an extended talk with his mother on arriving home that evening, but her suggestions were of no aid to him. The entire household had been radiating happiness for some time previous to the receipt of the letter that had so strongly affected Charles. They had much cause for being pleased with their affairs, for Charles some time previously had learned of a mechanical method of treatment which was working wonders in the improvement of his crippled sister. Many of her muscles that had lain dormant, apparently lifeless, were beginning to show signs of being possessed of life. Slowly but surely, week by week, had these results been accomplished. At the first evidence that the new method used for Edna was showing an improvement, they were almost overjoyed. Edna's delight was almost uncontrollable.

"Oh, I shall be able to walk some time, won't I, mother?" she had repeated over and over again. Hardly a day passed but that she would speak of her marvelous improvement, and they were all looking forward to the time in the not far distant future when she would be strong enough to begin to take a few steps. Her crooked body was slowly but surely being

straightened, and instead of looking forward to the suffering that she would naturally have been compelled to endure as a cripple throughout her entire life she was now hopeful and happy and satisfied that in the not far distant future she would be able to develop into a young woman free from the defects from which she was then suffering.

It would be impossible here to go into the details of the methods that accomplished such remarkable results in Edna's case. They were based upon the stimulation of the nerve centers through various movements and applications to the spine, which Charles regarded as the seat of all nerve power. In her case, naturally, it was the want of nervous powers in various parts of the body that had caused her deformity.

Charles and his mother had often discussed Edna's case with a view of determining the original cause. She had never developed normally like the average child and therefore the defects from which she was suffering, one might say, were brought into the world with her. Edna was born a short time after her father was sent to the penitentiary, and the query as to whether or not she was marked before birth by the tragedy that her mother experienced at the time of the murder often occurred to Charles. It seemed to his inquiring mind that these influences had caused the defects from which Edna was suffering.

Several days passed and Charles endeavored in various ways to find some trace of Emily. He was not successful in finding even the slightest clue. On one occasion, thinking that the caretaker in their house might be inveigled into giving him some information, he secured a false beard and mustache and with the aid of this disguise rang the bell at the Walker mansion, and though he represented that he was especially desirous of seeing Mr. Walker on some important private matter, the man who answered the door could not or would not reveal his whereabouts. These repeated disappointments almost made Charles feel desperate at times. There were moments when he thought of giving up his position and devoting his entire time to searching for Emily. Somehow he felt

that her parents were keeping her away from him by force and after a time he began to question as to whether or not Emily had really written him the letter he had received. On each occasion, however, when this thought occurred to him he had read and re-read the letter until he was convinced of its authenticity. It was Emily's handwriting, he was sure of that.

He at last determined to ask the secretary of the Y. M. C. A. for a vacation. He felt satisfied that if he could devote his entire time to the search that his efforts would be rewarded. The next morning after the secretary had granted his request, and while he was deep in the consideration of the plans that he was forming with a view of locating Emily, his mother hurried into the room, excitement indicated in her glowing features.

"Oh, Charles, here's a letter from Emily."

"A letter from her? Oh, joy!" hurriedly taking the letter handed him by his mother and quickly tearing it open and reading as follows:

DEAREST CHARLES:—

I have wanted to write you every day. I tried to send you a note on several occasions, but I was afraid I should be detected. I have felt somehow that you might have believed my treatment of you was harsh, but after all, I am only thinking of your happiness. It was terribly hard for me to give you up. I have suffered keenly, intensely, every moment of every day since I came to that decision. Day after day has passed, however, and I have heard nothing from you. I thought somehow that you would find me regardless of the efforts of mother and father to conceal our location. You must forgive me if I do not give you any address, first of all because any letter that would be written to me would be received and opened by either mother or father, and second, I really believe it would be dangerous for you to come here. Father is so terribly incensed at you that I would not be the least surprised if he would do you bodily harm. He always carries a revolver, you know, on account of his work, and he might find some excuse for using it on you if you appeared on the scene. I still believe the decision of my letter should be final, and no doubt you agree with me by this time.

Affectionately yours,
EMILY.

Charles read and re-read the letter. It was indeed welcome to him, but it only

deepened the mystery as to her whereabouts.

"Oh, mother, it tells me nothing," said Charles, handing the letter over to his mother, who had been studying the features of her son as he eagerly read Emily's communication. As his mother started reading he saw the torn envelope that he had dropped to the floor. A thought occurred to him and he hastily picked it up. Emily had forgotten to consider the postmark, and sure enough, there, plainly stamped on the envelope was the name of the town in which the letter had been mailed.

"Hey, hey! Hi, hi!" screamed Charles throwing up his arms and dancing around the room like a man bereft of his senses, while his mother looked up in amazement at his antics. "I've found it, mother—look!" holding up the envelope high above his head while he gazed gleefully at her.

"Ah, that's fine," she replied, as she noted the envelope was the source of his information. "But what are you going to do now that you have found the address?"

"I shall take the first train that will take me in that direction."

"Now, son, don't be reckless. You can see plainly what Emily has said in this letter. You cannot tell what Mr. Walker might do."

"I don't care what he does or what he tries to do. He can't keep me away from Emily unless she personally assures me that such is her desire."

"Well, she has assured you of it in the letter you have received."

"Yes, I know, but she must say this to me after she has heard me."

A few hours thereafter Charles was comfortably seated in an express that was flying along at nearly a mile a minute in the direction indicated by the postmark on Emily's letter. His features wore a smile of content. At last he was to see Emily. He did not for a moment think of the dangers that he might incur. There was but one thought in his mind—that he would soon be near the girl to whom he had given his love and his life.

When he boarded the train the task before him seemed easy, but as he approached his destination he realized that

he might encounter serious difficulties. He had often heard of the resort before and it might be quite a large place. Mr. Walker, however, was a well-known man and he should have but little difficulty in locating him. The thought came to him also that there might be detectives watching his movements and that Mr. Walker might be notified in advance of his journey.

A large number of persons alighted from the train when it arrived at the station. How was he to find Emily? Where were the Walkers stopping? These were the questions that puzzled him, as he followed the crowd on the depot platform, and like a flash a plan occurred to him. He entered one of the carriages that were awaiting patrons and asked the hackman to drive him to the best hotel. On alighting at the hotel he tipped the driver liberally and after making other inquiries learned where Mr. Walker and family were stopping. He realized that the information would be of but little value to him until he could learn something of their habits. He knew that Emily would no doubt be out swimming or rowing, and that an opportunity would unquestionably occur when he could see her alone. He had brought with him the disguise he had used on a previous occasion, and he felt satisfied that neither Mr. nor Mrs. Walker would recognize him. That evening and all the next morning he lingered about the neighborhood and near the house that he finally located where the Walker family were living. During the morning they were out for a time, and Charles followed a respectful distance behind. There was a sad expression about Emily's features that was not displeasing to him. It plainly showed that she had been unhappy. The light-hearted gaiety that usually seemed to be a part of her nature had disappeared. During the afternoon and also the evening he followed them as closely as he could without creating suspicion. It was not until the following evening that an opportunity offered for him to speak to Emily. With her father and mother she had been out boating, and on returning home Emily was accompanied by a young girl apparently a recent acquaintance.

They loitered considerably behind Mr. and Mrs. Walker. Within a short distance of the house in which they were stopping the young girl bade Emily good-bye and turned up a street leading to her home. Charles saw this was his opportunity and he hurried as fast as possible. It was twilight and the dark shadows were creeping here and there. As he neared Emily he slackened his pace. He had almost reached her side before he remembered his disguise.

"Emily," he said in a low voice. She turned quickly her features transfigured. She had recognized the voice but a look of fear instantly spread over her features and Charles saw she was about to run away from him.

"Emily, it is I. Don't you know me?" She heaved a great sigh of relief at his tones and words.

"Oh, Charles, I didn't, but I know you now. Your eyes I could never forget," returning the pressure that he had given her extended hand. "But you can't walk with me, Charles. Mother and father are only a little way ahead."

"I know, but it's dark, dear. They won't know me in this disguise."

"No, but they will see me with you and they will want an explanation."

"Well, what can I do. I have come all the way to see you and I must see you, no matter what the cost may be."

"Oh, I don't know. I don't know. I am watched all the time."

"Tell me something quickly, before you have to go," he urged as he saw she was about to move away from him.

"Listen. I take very early morning walks with the girl you saw me with to-night. I will see you to-morrow morning at five, two blocks east of our home," hurrying away from him as she uttered the last words.

Charles was satisfied. At last he was to see her. He would now have an opportunity to have a definite understanding with her. He felt sure that she would change her conclusions.

Though the hour she had appointed was early, he was there considerably in advance of the time the following morning. The sun had risen but a few moments when he saw Emily coming in his direction. He was greeted by a radiant

smile which thrilled his nerves with indefinable pleasure. She looked up into his eyes as he held her outstretched hands, and he could see in advance that he would have but little difficulty in convincing Emily that her recent decision was unjust and unnecessary. They walked along silently a few moments, each wrapped in the pleasure of the other's presence.

"I cannot tell you how much I have missed you," said Charles.

"Not as much as I have you," she replied, glancing up shyly at him, her features radiant with color.

There was nothing of importance discussed as they both slowly meandered along. Words were poor and meaningless to the souls of these two mated human beings. Life was glorious, resplendent with joys that were sublime in nature for them at the moment. Love has a strange, at times even a weird power. It can imbue one with a happiness that brings sublime content, or it can deeply enmesh you in a scorching fire that might fittingly be compared to that which is meted out within the infernal regions. There was nothing but sweetness and joy in the love of Emily and Charles. To be sure they had had their worries, to them they assumed very great importance. Charles was impressed with the idea that he had suffered severely because of his inability to see Emily, but suffering is, after all, a matter of mere comparison. We are said to suffer when we are not able to enjoy the luxuries that are habitual to us. Each day for a considerable period Charles had found blissful content in the time that he spent with Emily. When this privilege was withdrawn he seriously felt the loss.

Charles and Emily wandered a considerable distance from her home. They found a quiet place near the seashore. They sat down and for a time listened to the pounding of the waves. Each was satisfied merely with the presence of the other. There is no need of giving details of the conversation that took place in order to convince Emily that she had made a mistake in her decision. She willingly acquiesced to the request of Charles that their engagement be as before.

"But when will you marry me," he finally asked.

"Oh, don't ask me that. How do I know?"

"I would like to take you now just as you are, without the frills and furbelows that come with a formal wedding. What do I care for all those folderols? I love you. I simply want you. I know that for years and years I would mourn you as one dead if I were for any reason to lose you."

"But you can't lose me, Charles," looking up into his earnest face with her usual radiant smile.

"Thank God for that. I never want to lose you."

Charles had been a very serious student, for many years, of physiological subjects. In his particular profession this knowledge was peculiarly necessary. He had never dwelt on these subjects as they affected marriage, in his previous conversations with Emily. He somehow felt that she was hardly ready to discuss them in a serious way. To-day, however, he thought the time appropriate to have a serious heart to heart talk with her of their future. She was a trifle abashed at first when the subject was plainly broached, but this soon disappeared and an interest was aroused which was deeply gratifying to Charles. They talked long and earnestly of the problems that are presented when one is desirous of building and retaining the satisfying happiness that should come with perfect homelife. As the time came for their parting, Charles insisted that Emily see him again, but she begged him to return to his work. She assured him that there would be no change in her decision thereafter, and it would be better for both of them to wait.

It was hard for the two lovers to part. They had known each other such a short time, and still there was such a perfect understanding existing between them. They seemed so necessary to each other, but Charles was partly satisfied with the possibility of being able to hear from Emily daily, and he left for home that afternoon.

While dreaming of the joys that were before him he was especially impressed with the need of more knowledge of the

responsibilities and duties connected with home life on the part of Emily, and he determined then and there that he would write her some extended letters that would bring home to her the truth in all its force and beauty. Had he realized for a moment the misfortune and suffering that one of these letters was to bring to him, he would have awaited a more appropriate time. He had not as yet learned the dangers that often lurk in written words.

He wrote Emily the next day a long letter filled with endearing terms, and at the same time it contained much valuable advice on the subject that was so near his heart. He spoke of the seriousness of marriage, he dwelt upon the physiological phases of the subject, he called attention to the marital unhappiness that is so often experienced, and showed how this resulted in nearly every case from physiological ignorance. He mentioned various books that he would like her to read.

This letter was followed by various others that were similar in nature. Each day he would receive a long, affectionate letter from Emily. He read and reread them, he treasured them above everything. He had forgotten the enmity of Emily's father, but Samuel Walker had not forgotten him. Mr. Walker learned of his visit to Emily the next day after his departure. He had his daughter watched to avoid any future meetings. He discovered that she was receiving mail, and one morning exactly two weeks after Charles' visit to Emily, he was surprised to see an officer appear in his private office in the Y. M. C. A. building.

"Is this Charles Warner?" was the query that was made as he entered.

"I am Charles Warner," was the reply.

"I have a warrant here for your arrest."

"My arrest," said Charles dumb-founded.

"Yes, your arrest. You will have to come with me."

"I will go with you willingly, but what can it mean? What is the charge?"

"Here's the warrant," replied the officer.

(To be continued.)

A Physical Culture School for Boys

AN EDUCATIONAL PROJECT THAT PROMISES SPLENDID RESULTS. SOME DETAILS OF UPTON SINCLAIR'S CONVERSION TO THE NATURAL DIET

By Upton Sinclair

Author of "The Jungle."

There are but few of our readers who are not familiar with Upton Sinclair's splendid work. He dealt the beef trust a blow that will never be forgotten. He exposed the horrors of the Chicago packing-houses, and physical culturists owe him an eternal debt of gratitude. Mr. Sinclair is a man with a purpose. The one object that he always has in view is to make men and women stronger and better in every way. He is intensely interested in the training of boys, and he is giving his time to the organization of a school for this particular purpose without recompense. His plans will undoubtedly be interesting to our readers.—Bernarr Macfadden.

THREE years ago, as many of the readers of this magazine doubtless know, I had to do with the start-

ing of a co-operative home—the Helicon Home Colony. It was destroyed by fire and a year of my time went for nothing. Many have urged me to start it again, but I cannot spare the time from my writing. Moreover, I have learned a good deal in the past three years, and among other things I have become a believer in the simple diet. I should not again care to take upon myself the burdens incidental to the serving of the conventional American "square meal."

I began to read PHYSICAL CULTURE about a year ago. I wish I had known of it before. While living alone out in California last winter I tried out the raw food idea. I never worked harder in my life, and

yet I was never so well. I had never supposed that any human being could be so well. I have succeeded in con-

verting my family to the idea, and so the domestic problem is done away with, so far as we are concerned.

But there is one problem remaining. I have a little boy, just eight years old, whom I love very dearly. I desire for him a full and perfect life, and I do not know where to find it. Both my wife and myself have many demands upon our time, which make it impossible for us to come up to our ideal of parenthood; and even if we gave all our time to the boy, it would not help, for no child grows properly save in association with children of its own age. We are obliged to spend a part of our time in the city, and a city is no place for a child at any time. David is at



Upton Sinclair and his son David in comfortable attire.

an age where we should like him to go to school, yet we do not care to send him to the ordinary day school, to sit in a stuffy room for hours with his head bent over a book; nor, on the other hand, do we care to send him to a boarding school, to learn to smoke cigarettes and tell smutty stories, and visit the homes of leisure-class friends, and become familiar with butlers and high-balls, and pie and candy and soda water, and all the rest of the paraphernalia of our self-indulgent age. We wish to keep our boy at home with us, and teach him self-respect and self-mastery; and yet we wish him to be with companions, and we cannot find any way to arrange for both.

Not being able to find what we want in the world, we have to go ahead and create it. We are going to start a boys' school this fall; a school which will be first of all our home, and the home of our boy, and incidentally the home of ten or a dozen other boys whose parents are in agreement with us as to what boys ought to have.

What ought a boy to have? First of all, a place in the country, with woods and fields to roam in, and water to swim in and row on. We shall find a house with some land, a couple of miles from some post-office and depot, within an hour or two from New York City; a home with a furnace and a big fireplace, and plenty of windows and piazzas. Ours will be an out-door school, and we shall not ask the permission of the weather. We shall sleep with all our doors and windows open, and we won't mind shovelling out the snow in the morning. The house will be simply furnished, with no curtains and upholstery and other gim-cracks to gather dust and keep out the sunlight. We shall make it our study to do without every superfluity, so that our boys may learn the lesson early in life, that happiness depends upon things inside one. Also the boys will learn to take care of themselves; there will be no menials in our home, and it will be the pride of every boy to do absolutely everything that he can—to wash and dress himself, to take care of his own room, and to prepare and serve his own food. All these things we taught to little tots between four and

seven at Helicon Hall, and it was one of the prettiest and most charming features of our "children's department." Done in co-operation and in a spirit of jollity, these necessary tasks of one's life are just exactly as much fun as playing tennis or pulling candy; and it is because we permit ourselves to look down upon them and relegate them to servants that we poor adults have to stand in front of a wall and pull at rubber-straps for our health. I wish my boy to believe that it is disgraceful to let any human being do anything for him which he would not do for that person in return.

That will mean, of course, that we shall take the trouble to live simply. I have found perfect health and happiness upon a diet of nuts, fruits and soaked grains, with a few salad vegetables now and then. This means that setting the table and cleaning up is rather a diversion than a drudgery. As I have found it best to eat the skins of such fruits as apples, pears, grapes, and tomatoes, I no longer need anyone to peel them and cut them up and make them into "dainty dishes" for me. The nutshells, banana and orange peels, etc., I throw into the furnace, and so I do not need a garbage can. I wish my boy to learn to live thus, so that he may not have to travel through the world with a cook-stove upon his back.

Can a child thrive upon such a diet? I can best answer the question by telling of our experience with David. At the age of four he was having the conventional children's menu: meat, soups and broths, cooked vegetables and desserts, bread and butter, and plenty of milk and eggs. He was fat and rosy, and a perfect specimen of what people consider a healthy child, and what I have since come to regard as a storehouse of unprotected nutriment for disease germs. The first winter pneumonia struck him down; and then slowly and laboriously we fattened him up again, and the next winter the croup got him. We built him up again, and then in mid-summer he got the whooping-cough, and in the winter bronchitis. Of course he always had sundry colds and snuffles—it never occurred to us that any child could escape these.

We became interested in the new ideas of diet, and stopped giving him meat; but we lacked the courage to give up milk, eggs and white bread, and so matters were not much better. This summer he was well and active, but was not gaining in weight as we thought he should. I had a friend with me who was living upon nuts and fruits, principally bananas, soaked prunes and fresh fruits, and I was trying it, and David became interested. He tried it for two months, and the result was startling. His tongue cleared, his breath became sweet, and the color simply leaped into his cheeks. The difference was noticed by everyone in two or three days, and for six weeks he gained in weight at the rate of an ounce a day—which is about four times as fast as a child's normal rate of growth.

A good part of this result I attribute to the simplicity of the diet. We never had more than four or five articles of food at any one meal; and this I consider the first essential for adults as well as children. I believe in abundant variety, but at different meals. My idea of a proper meal for a boy, and for myself also, is an ounce or two of nuts, a dish of soaked wheat with a little olive oil and some dates, and an apple or two to finish off; or, again, some nuts, a couple of bananas, a dish of soaked raisins or prunes, and an orange. I have met men who live upon a diet such as this, and can turn out at a minute's notice and run twenty miles across country. I have seen one who is the strongest man of his weight in the world. It is the ideal diet for any one, except an invalid who has been so reduced by excesses that he cannot digest the natural foods; and this is not the case with a normal child. It has been my experience that when David is living where he sees other people eating cooked vegetables and cream sauces and fancy dressings and bread and butter, he craves these things; and that when he is in the country with me he never thinks about them at all, and eats with the utmost relish whatever simple food is put before him.

And the same principle applies to all the other unwholesome things of our time, to showy clothing, and to cheap and flimsy and silly toys, made to be sold

for profit and broken and thrown away. A normal boy ought to have a baseball and bat, a pair of skates, a pair of bathing trunks, and a stout jack-knife; and with wholesome companions and all out doors to play in, he will not need a toy-shop. We shall teach our boys to row and swim and skate and play baseball; we shall interest them in nature study, and in the collecting of specimens; they will each of them have a garden and see how things grow. I do not believe much in book-study for children under twelve. I would rather they hardened their muscles and expanded their chests, and when they are older they will have blood enough to support their brains. An hour or two of reading and writing will suffice; and for the rest, let them sing beautiful songs and hear interesting stories.

I am not undertaking this work without realizing the responsibilities involved. I should not have thought of undertaking it at all, had I not a person of experience and devotion to take full charge of it. Out in California I met a lady who is, I think, ideally fitted by temperament and training to carry out this work. She has raised a family of her own—her eldest son is a graduate of Stanford University. She has a daughter of seventeen and a little boy of David's age. She has lived most of her life upon a farm, where she learned economy and management, and for several years she has been president of a bank. She is a woman of keen mind and the broadest intellectual interests; and I think the most perfectly poised human individual it has ever been my fortune to meet. She was for many years a bed-ridden sufferer, and cured herself by a long fast. I was the means of introducing her to the raw food idea, and she and her family have followed it with the greatest success. She has agreed to come east and devote herself to this school. Also we shall have the advantage of Bernarr Macfadden's cooperation and advice as to the diet and physical training of the boys.

It is our plan to take not more than twelve boys at the start. This makes a comfortable group for one teacher, and we can prove our thesis just as well with a small number as with more. When once we have shown what can be done,

it will be very easy for others to follow. We want to hear from a sufficient number of parents whose ideas are similar to our own, and then we will arrange to meet with them in New York and talk the matter over further.

As to the prices which we will charge, it will be possible to run such a school as I propose for much less than an ordinary boarding school. But we shall of course wish to have competent and reliable people to assist us, and we must allow for this. As soon as I find out how many boys are to come, I will be able to figure definitely the cost, which should not be over twenty-five or thirty dollars a month. The lady who is to manage the school will receive a moderate compensation. I personally will not receive anything, and will never take any profit from the enterprise. The price we shall charge will be sufficiently high to allow a safe margin for sundries and accidents;

and whatever surplus there may be will be devoted to paying off the expenses of organizing and equipping the institution, and after that either the price will be reduced, or the profit will be used for the educating of some boy whose parents are deserving of help. I will pay for my boy just what the others pay; and while I shall think of the school as a part of my home, I shall rent myself a house nearby. I seek from this venture nothing for myself but a proper sort of school to which I can send my boy.

The school will run all the year, and the terms will be by the quarter in advance. We wish boys between the ages of eight and ten; and also we wish to hear from a teacher who would be interested in our way of life, and who can teach singing and nature subjects. Address at once, Upton Sinclair, care Bernarr Macfadden, Battle Creek, Mich.

Annual Games Suggested

TO THE EDITOR:

I have a suggestion to offer along lines often commented on in your magazine, that I think you will find helpful.

As you have often written in your editorials, there is little or no opportunity for the young man who works to indulge in general athletics. Outside of the very largest cities, with their few and exclusive athletic clubs, the Y. M. C. A.'s, and the colleges and high schools, athletics is a dead letter to the average young man. If he wishes to run, to jump, to hurdle, or try any kind of sport, he finds no encouragement to do so, such as the great annual games colleges hold to encourage the athletic spirit among their students. Lately, as you are aware, the Marathon revival has started thousands of young men to training for distance running; the reason is, because they have a chance sooner or later to show their ability, for Marathon races are being held now by all the leading cities, with open entry lists. But how about the young man who wishes to high jump or broad jump, or put the shot, or any of those common forms of track athletics? He finds as I mentioned above, no chance to display his skill. College and high school games are closed to him; the A. A. U. annual games are held in the far East, and are monopolized by college stars almost exclusively, and few Y. M. C. A.'s hold any games of their own.

Now what I have in mind is this; through the columns of your magazine, announce a series of annual games to be held sometime in the summer, and a series of indoor games in the winter, under your auspices, at various large centers throughout the United States, keeping

the entry lists open only for young men who work during the day, and thus shut out the disastrous competition of college stars who have trainers and training tables to fit them to perfection for contests. Close the lists entirely to any man who does not work for a living, and hold the games *exclusively* for the great crowd of working men. I would suggest to begin with, to confine the games to what is known as track athletics, with perhaps swimming, or some such common sport, as a side issue. It might be that baseball or football teams could later on be organized to contest among themselves. Let the winners in these contests at the different points throughout the United States (and there may be from six to twelve points selected for the preliminary contests), meet in the finals at New York or some other large central point. Prizes may be medals, or something of that nature. The out-door summer games could be supplemented with indoor winter games to keep interest up during the usually long dull winter months.

You will readily see by the above, that the plan suggested would reach right out to the young men who like sports and yet find no outlet for distinguishing themselves, and prevail upon them to train. It would be to general athletics what this Marathon craze is to distance running. It would do away entirely with the present unhealthy custom of young men confining their interest in athletics to squatting on hot bleachers during the baseball season, and eagerly scanning the newspaper columns during the winter season for the latest football news.

Denver, Colo.

E. R. JOHNSON.

The Persecution of Benefactors

By Addison Berkeley

THE WORLD HAS IN MANY INSTANCES HOUNDED
ITS NOBLEST PUBLIC SERVANTS AND REFORMERS

It seems strange that those to whom we are most indebted are not infrequently ridiculed and mistrusted. The strange, the unusual, is nearly always condemned, and those who depart from the conventional law must expect to pay the penalty. In the past, some of the world's greatest benefactors have been compelled to suffer to a degree that the tongue or pen could never describe. Men who have the courage of their convictions, who have a message to the world, are forced into the limelight and unless they are willing to suffer opposition and persecution of various kinds they must keep silent. The author refers very briefly to the experiences of some reformers in the past. For most of the photographs reproduced in this article we tender our thanks to the "United Editors' Encyclopedia and Dictionary."—Bernarr Macfadden.

IF the facts of history are to be taken for granted, the world is and always has been, ungrateful to those who have been its truest benefactors. More especially was this so in the past, although in the present, the lamentable trait in question, still makes itself evident on occasions. Why this is so, is hard to explain, except on the basis of a survival of that savage instinct which prompts the destruction of the novel and unusual. The white man who visits an aboriginal tribe for the first time, does so at his peril, for the reason that the killing of strangers is one of the primal promptings of barbaric man. And something akin to the same fate awaits the reformer and the philanthropist whose ideas run counter to the petted vices or accepted evils of so-called civilization. To attempt a departure from the conventional is to court criticism, at the least, and punishment by the law or society at the most, more especially if the departure violates traditions of prudery or criminal fashion. In the days that have

been, offences against the ruling classes or priestly powers won the crown of the martyr. Nowadays, the one who suffers is he who has the courage to protest against the follies of fashion, the blindness of bigots or the crimes against common sense and natural instincts which are so petted by society, and conserved by alleged law.

This tendency to misunderstand or misuse its benefactors, has not been confined to any one generation or period of the world's history. The Old Testament is charged with references to the manner

in which the prophets and ancient reformers suffered at the hands of the ignorant and bigoted. The New Testament tells of the trials and humiliations and death of the greatest and gentlest benefactor which the race has ever known, together with the harsh fate which befell many of His followers. Later, the early Christians confronted and denounced the entrenched vices, the evil habits and the hide-bound hypocrisy of their day—and they paid the



Socrates, the Greek philosopher and sage, who was forced to suicide by his enemies.



Christopher Columbus, who was unjustly imprisoned as a reward for his sacrifices for the world, and who died neglected and in poverty.

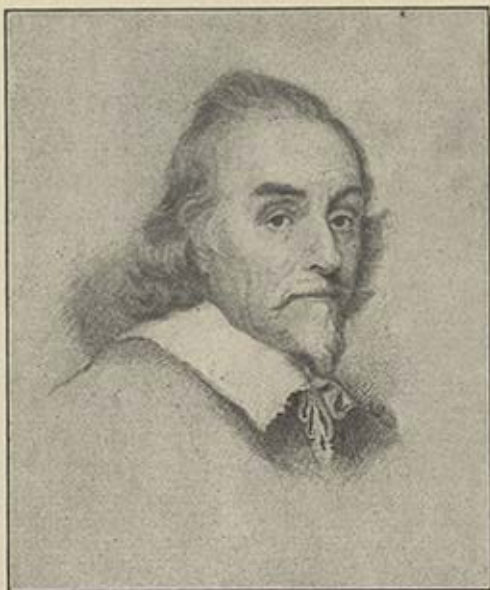
penalty for so doing. But their blood was "the seed of the Church." From the ground enriched by the libations from their veins, sprang the fruit of the mental and spiritual freedom which we now enjoy. It is true that with the growth and spread of Christianity there have frequently been in evidence those who have ever sought to perpetuate the gloom and cruelty of pagan days, and it is these too, who have consistently manifested a disregard for the rights and opinions of others. Of such were the corrupt churchmen of the Middle Ages; the witch-burning Puritans of Colonial days and the sour-faced, foetid-minded prudes of the present. Happily though, the Dark Ages have passed forever, the Puritans are extinct and the prudes—thanks to the spread of physical culture principles—are moving toward well-deserved oblivion also.

Space will not permit more than the merest glance at the great roster of those who suffered on the score of the truth and nobility of their beliefs and doctrines. They may be numbered by the hundreds of thousands, and in nearly every case, their propagandas were finally victorious, and the world lamented too

late, the fate that it had meted out to the reformers or geniuses. Let us hark back for some centuries before the tragedy at Calvary—469 B.C., to be exact. Then was born Socrates, one of the most wonderful teachers and reformers that the world has ever known. Scholar was he, soldier, orator, author and Senator. Also did he found Greek philosophy and a purer, cleaner mythology than he met when he came into the world. But he undertook to reform the religious system of his country. He tried to open the eyes of his compatriots to the rapacity and sensuousness of the priesthood. And he met with the fate of those who have the courage of their convictions. The laws of the period were invoked against him; his request that the motives which prompted his teachings be examined and passed on, was denied. His judges found that he had been guilty of "disrespect to the gods." Every schoolboy knows the outcome of his trial; he was condemned to swallow the cup of poisonous hemlock. The classic



Galileo, the famous astronomer and inventor of the telescope, who was persecuted and forced to forswear his beliefs.



Dr. William Harvey, the great physician, who was derided and ridiculed when he first announced his discovery of the circulation of the blood.

Reformation. When later and in the next reign he was imprisoned for the part that he had played in religious affairs, he recanted. This was in 1555. But the next year he publicly avowed his return to his first principles and was burned at the stake in consequence. But his influences remained and the Reformation was advanced rather than deferred by his martyr fate.

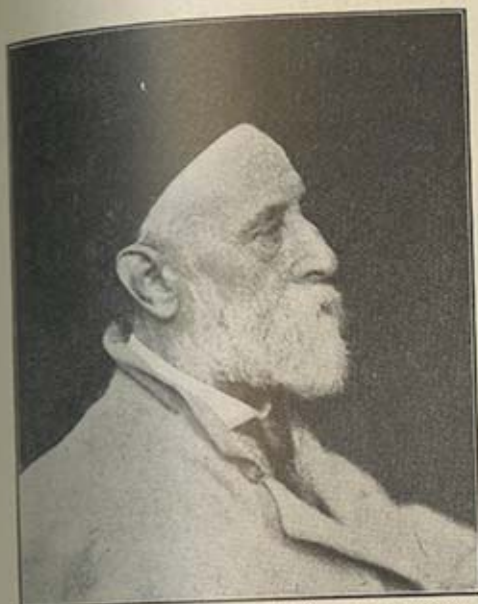
Galileo, the learned Italian astronomer and philosopher who perfected the heavenly system which is now recognized by all scientists, was the subject of acute persecution by the clergy, as well as by the ignorant population of his times. He was born in Pisa, in 1564, and for a number of years was engaged in bringing the Copernican astronomical system to perfection. He was professor of Mathematics at Padua, and at Pisa, and invented many scientific instruments. His discoveries in astronomy have been of the utmost importance to mankind. In 1637 he published his famous work in which are embodied the fruits of his work and investigations. Then begun his active persecution by all classes, and finally, he was ordered to appear at Rome and re-

cant. He signed a document to the effect that his statements that the world revolved around the sun and not the sun around the earth were inventions of the Evil One. But as he rose to his feet after signing, it is said that he whispered to a friend, "It moves nevertheless." Up to the last, he was subject to surveillance and humiliation.

Dr. William Harvey, the discoverer of the circulation of the blood, was born in 1578, in England. He studied at home and abroad and was finally appointed visiting physician at St. Bartholomew's Hospital, London. Up to this point Harvey's career had been smooth and peaceful. But he was of an inquiring frame of mind and hence began to delve into the mystery of the heart and blood. Finally, he announced the great discovery with which his name is identified and which has done so much to advance medical science. At once, the doctor was made to feel the persecution that professional jealousy is capable of inciting. His theory was rejected by practically all of his professional brethren, many of whom wrote philippics against him; there were organized attempts on the



George Washington, who was unjustly condemned as possessing imperial instincts by the press of his times.



James Watt, perfecter of the steam engine, at one time regarded as a fool or worse.

part of certain learned bodies to belittle his discovery, and the populace was encouraged to look upon him as a public enemy. All sorts of stories were circulated about him, including one to the effect that he stole children for the sake of experimenting on them to the end of "proving his false and wicked unbeliefs." He was threatened by mob violence on more than one occasion, and it is said that at one time he contemplated leaving England because of the antagonistic attitude of the public and the persistence of his enemies. However, recognition came to him at last, even if late. Gradually, other and fair minded physicians, especially those of France, investigated his claims and acknowledged their truth. The tide, turned and after many years of trial, Harvey was made physician-in-chief to Charles the First of England.

Even the keenest critics of the Quakers—as the members of the Society of Friends are popularly known—will admit their virtues, even if they take exception to their principles of non-resistance. Yet the founder of this God-fearing and peaceful sect was constantly in prison for promulgating the kindly principles which he did. Born in the little village of Drayton-in-the-Clay,

England, in 1692, George Fox from an early age showed that spirit of justice and peace to all which culminated in the organization of the Society. Then began persecution, mainly because the Quakers refused to bear or use arms. As has been said, Fox was arrested and imprisoned scores of times on the charge, curiously enough, of "inciting disorder."

John Bunyan, the author of the immortal "Pilgrims' Progress" and similar works, spent twelve years in prison simply because he tried to teach his fellows to live cleanly and simple lives. It was during his incarceration that he produced the book which is looked upon as a religious and literary classic. Born in humble circumstances, in 1628, Bunyan seems to have been the subject of a sudden reformation after a career that was by no means creditable to him. After his conversion, he began to preach and incidentally, lifted up his voice against the abuses which were flourishing in the Established Church itself. For this he was arrested charged with being a "promoter of seditious assemblies." From this time on, Bunyan seems to have known more about the inside than he did of the out-



William Lloyd Garrison, the famous abolitionist, for whose capture the Georgia Legislature offered \$5000.

side of prison walls. It was the old story of the world persecuting a man that was seeking to do it good. And its persecution was made possible by stupid laws and blundering judges.

It may be news to some to know that George Washington himself was not exempt from the persecution which inevitably waits on high motives and sincere devotion to the public. History, for patriotic motives perhaps, suppresses a good deal of the persecution and sneers and innuendoes to which Washington was subject, not only during the war but afterwards, when he took the reins of government in his hands. He was the recipient of some of the bitterest forms of ingratitude that it is possible to conceive. His motives were belied and his honesty of purpose questioned. He was accused of sacrificing the interests of his country to his personal aggrandizement. It was openly charged that he had "imperial instincts and that he would, in due season become the tyrant of the United States." When he issued a proclamation ordering the observance of strict neutrality between England and France, one of the American newspapers of the time declared that this same proclamation was "a royal edict and a daring assumption of power." One historian says of him, "his military and political character was attacked by a certain section of the press with the utmost virulence. It was averred that he was a total failure as soldier and statesman." The grafters and traitors in high places did all they could to inflame the populace against him. Washington tasted to the full the gall-filled cup of national ingratitude and suspicion. That his services and sincerity were finally recognized is neither here or there. The fact remains that George Washington had undergone the experience of all men who have had the courage to run counter to the accepted order of things for the sake of improving them.

James Watt, the Scotch engineer whose improvements on the steam engine were of such a nature as to constitute a practical re-discovery of the invention, was another victim of misrepresentation and envy. His work was publicly declared to be that of a charlatan and an

adventurer. He was laughed at and condemned in the press and it was intimated that his ideas were those of a visionary or a swindler. Watt lived to see the day when his inventions were accepted by the public with the confidence which they deserved.

The experience of Robert Fulton, the "father of nautical steam engineering" was in a way, not unlike that of his Scotch colleague. The story of how his little steamboat, the *Clermont* was laughed at, not only by the public but by the men whom he had tried to interest in the problem which she represented, is old news to the reading public.

Lord Joseph Lister, the inventor of antiseptic surgery, who in 1860 began to promulgate the principles with which his name is identified, had to undergo the criticism and indeed, the persecution, of a good many of his professional colleagues, before the truth of his discoveries were accepted and honored. Thousands of lives have been saved by the Listerian methods which, after all, are but physical culture principles of cleanliness and common sense applied to the operating rooms of hospitals or the private practice of the average surgeon.

William Lloyd Garrison, the famous abolitionist, saw the folly and sin of slavery when this country was committed to the "institution" which later was among the contributive causes to the Civil War. Political feeling, expediency, the feeling of the masses and the laws were all against Garrison. But these did not deter him. He felt that he was right and he went ahead. In 1831 he began the publication of *The Liberator*, in Boston and was immediately subjected to threats, persecution and even violence. As characteristic of the public antagonism aroused against him, may be cited the fact that the Legislature of Georgia offered \$5,000 for his arrest. His life was repeatedly threatened and there were many attempts made to ruin him in a business and social way. Nevertheless he lived to see the day when the principles for which he had so faithfully striven were victorious and the slaves were set free.

And so the list of persecuted reformers might be continued indefinitely.

General Question Department

By Bernarr Macfadden

Our friends will please note that only those questions which we consider of general interest can be answered in this department. As we can only devote a small portion of the magazine to matters of this kind, it is impossible for us to answer all the queries received. Where the letters, however, do not require lengthy replies, the editor usually finds time to answer by mail. Where an answer of this kind is required, please enclose a self-addressed, stamped envelope.

Healthful Diet in a Boarding-house

Q. While in England I lived largely on nuts and fruits, and it saved me from physical ruin; but I am now living in western Canada and boarding in an ordinary boarding house, and am puzzled as to the best method of securing a healthful diet. Can you help me?

A. I must admit that it is difficult to select a healthful diet in an ordinary boarding-house. About the only method you could adopt in the circumstances would be to gradually educate the cook of your boarding-house, or else secure your own foods and have them served to you. As a rule the proprietor would hardly object to buying rolled wheat or rolled oats, dates, prunes and other cheap articles of food, as it would cost less to board you in this way than it would on the ordinary diet. A better method still, however, would be to secure your own food and reside in a rooming-house instead of a boarding-house. In this manner I think you will not only be thoroughly nourished, but at the same time will secure more enjoyment and benefit from your diet than you would while trying to follow a wholesome diet under adverse circumstances.

How to Detect Over-eating

Q. How can one tell whether or not he is over-eating?

A. There are various signs that indicate a habit of this nature. A coated tongue is one of the most prominent symptoms. A full uncomfortable feeling is another. The frequent appearance of melancholia a little while after eating is a prominent sign. Lack of appetite often indicates this habit. Please note, however, that over-eating is frequently associated with a ravenous desire for food. In other words, no matter how much you eat, you never feel fully satisfied. In most cases, a fast is useful in troubles of this kind. Even if the fast does not last more than a day or two, it will in most cases bring some relief. If you do not feel like fasting, then it is advisable to eat only a small amount at each meal. For instance, lay aside so much food before you begin to eat, and do not allow yourself to eat beyond this amount.

Diseases of the Prostate Gland

Q. Will you please tell me through your magazine if a swollen prostate gland can be cured by natural means?

A. In nearly all cases of this kind the cold sitz bath can be used to very great advantage. Where one has two bath tubs and can take a hot and cold sitz bath, alternating from one to the other two or three times, as a rule more beneficial results can be expected. If it is difficult to find conveniences of this nature, then a cold wet towel applied at the affected part when going to bed, and allowed to remain there all night, will in most cases be effective. However, if methods of this kind have been tried and no results have been secured, then it is necessary to attack the trouble through the blood, that is by purifying the blood and eliminating from it the poisons that are in many cases an important cause of the inflammation or disease of this organ. This blood purifying process can be best brought about through an absolute fast, though a very strict diet will often accomplish it.

Catarrh of the Nose and Throat

Q. What treatment do you advise for chronic catarrh of the throat and nose?

A. Similar queries to this have been answered on various occasions in this publication, but this trouble is so common that a reiteration of previous information given in reference to it will no doubt be appreciated. Catarrh of the mucous membrane in any part of the body is brought about simply and solely by the existence of catarrhal poisons in the blood. Local treatment, although it may be of temporary value, can never be of permanent aid. There is only one way to cure catarrh, and that is to remove entirely these particular poisons from the blood. This can be done in various ways; in fact, almost any method that will build up the general vitality, which carries with it a reduction in the amount of food you are eating, will slowly but surely remedy catarrhal trouble. Activity of the skin is especially important, and dry friction baths are most emphatically recommended to sufferers from catarrh. Remember, however, that a superior digestion is absolutely important and special attention must be given not

only to the food that is eaten, but to thorough mastication and to every means that is necessary in order to increase the general vitality and purify the blood.

Increasing the Height

Q. Is there any method by which I can add to my height?

A. Stretching exercises, such as reaching up as high as you can, or while lying on the floor stretching the body out to its fullest possible length, will often materially increase the height. This simply adds to the length of the cartilaginous tissue of the body and thus increases the height.

Is Water Injurious to the Hair?

Q. Is frequent use of water injurious to the hair?

A. Frequent use of water is not injurious; in fact, in many cases it is valuable. As a rule, however, the hair will be in better condition if it is partially or entirely dried in the rays of the sun after wetting. The frequent use of salt water seems to have a rather injurious effect upon the hair, and whenever bathing in salt water the hair should be thoroughly rinsed in hot water thereafter.

Hot Towels Injurious to the Face

Q. Are hot towels injurious to the face?

A. Applying moist heat to the face in the form of a hot towel could hardly be considered injurious, unless used too frequently. As a rule it will open the pores, materially stimulating the activity of the pores of the skin, and in most cases can be recommended as a means of improving the complexion. It is well, however, after using a hot towel to dash cold water over the face or use a cold wet towel.

A Cure for Goitre

Q. Will you kindly outline a treatment for large neck (goitre)? I wish to find a remedy if possible.

A. Goitre can only be treated constitutionally, that is, through the blood. You must remember that the symptoms of swelling which are associated with goitre can only be brought there by the blood. Therefore, you can well realize that recovery can only be affected through the blood. All the various means of purifying the blood should be adopted. A long fast is especially advisable if one is seriously desirous of remedying this deforming complaint. In many cases, however, it cannot be entirely removed, but its growth can be permanently stopped, and no inconvenience or disease will result because of its presence.

Making Straight Hair Curly

Q. Can you tell me any way to make straight hair curly?

A. There are various ways of giving straight hair a wavy or curly appearance. Plaiting it

tightly in half a dozen or more plaits after wetting it and before going to bed, will often bring about the desired result. Pulling the hair vigorously while drying it in the sun will be inclined to make it curly or wavy.

Remedying Piles or Hemorrhoids

Q. Can piles be cured by physical culture means? If so will you kindly advise a remedy.

A. In practically every case this very annoying complaint can be removed by the means advocated in this publication. In many instances a short fast is essential, though it is not absolutely necessary. If one will follow the diet advocated by us, being careful to use those particular foods that keep the bowels very active, pleasing results in remedying this particular complaint can nearly always be expected. In some cases, water enemas can be used with advantage; in other cases, an oil enema of two or three ounces taken just before retiring and retained in the bowel, is advised. Cold sitz baths can in many instances be recommended. Where the complaint is chronic and really serious and of long duration, a very strict régime is essential in order to bring satisfactory results.

Cure for Biliousness

Q. Please advise me a cure for biliousness, as most people are bothered more or less with this complaint.

A. As a rule the free use of lemons or acid fruits will quickly relieve a trouble of this kind, and in connection with the use of foods of this character various laxative foods can be used advantageously. A fast, even if for no more than one meal will be found of considerable value in assisting to bring about the result desired.

Cutting out Tonsils

Q. I have been troubled with tonsilitis of late, and know of no way to treat the complaint. I have been advised by a physician to have my tonsils cut out. He says they are of no particular value and if they were removed I would not be troubled again.

A. I certainly would not advise you to have your tonsils cut out. The particular congestion or inflammation that appears with tonsilitis is simply evidence of a condition of the blood which can be easily remedied by an appropriate diet, or the adoption of various methods which are essential in cleansing the blood of impurities which are the real cause of the symptoms. The gargling of strong salt and water can be advised in many instances, but a remedy of this kind is, of course, only temporary. Cold wet cloths applied around the throat are in some cases of some value, but what you really need when you suffer from a trouble of this kind is to drink hot water very freely and to avoid food for at least a day or two.



THE VIRTUES OF OUR METHODS PROVEN

Splendid Results of Three Months' Training

TO THE EDITOR:

The photographs I am sending you will show more plainly than any description I might give what your magazine has done for me in three months, without causing me to lose a minute from work or pleasure. During the entire period I was blowing glass eight hours a day, a trade considered very unhealthy. I walked several miles a day every day excepting the last six weeks, and each day during that period I walked fourteen miles. The average workingman seems to think he is too busy to take up physical culture, but I believe I was as busy as most any during that time and I gained results far beyond my wildest hopes. I hope that my testimonial may encourage others.

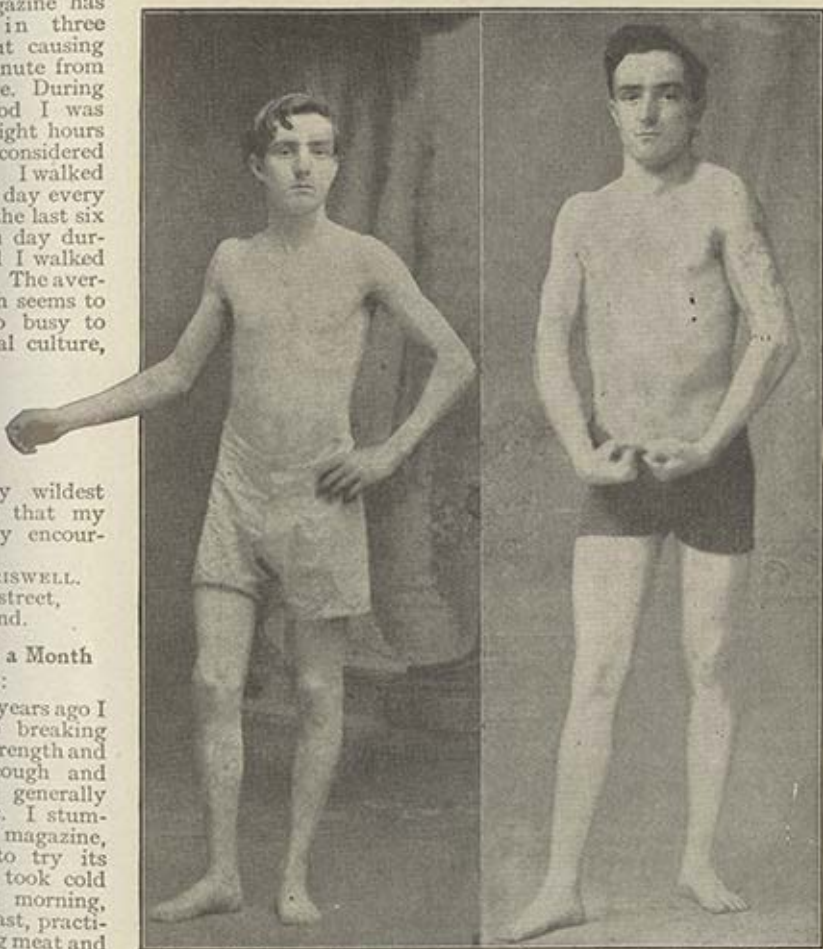
Geo. F. Criswell,
111 W. First street,
Marion, Ind.

Cough Cured in a Month

TO THE EDITOR:

About seven years ago I seemed to be breaking down. I lost strength and developed a cough and seemed to be generally going to pieces. I stumbled across your magazine, and resolved to try its methods. I took cold baths in the morning, omitted breakfast, practically quit eating meat and pastry; I had stopped drinking tea and coffee long before this. I also began taking much more exercise both indoors and out. Inside of a month my cough was gone, and

I was considerably improved in other ways. I have had only one cold of any consequence since then, and I need not have had that. Once or twice I have relaxed my vigilance since then, and I can see the effects immediately.



Geo. F. Criswell, a glass blower by trade, who gained fifteen pounds and greatly increased muscular vigor from three months training. His weight was 115 pounds when he began training. After three months' work he weighed 130 pounds. In the comparison pictures the reproduction of the photograph to the right is a little larger than it should be, but the change in the general physique is quite apparent.



Robert Bernarr Vlosnik, Niobrara, Neb. A Happy Physical Culture Baby.

I have been a reader of *PHYSICAL CULTURE* for the last seven years and believe you are doing a work of immeasurable value for the world. I especially admire your fight on prudery. I believe prudery is one of the greatest curses we have to-day. Your story, "Growing to Manhood in Civilized (?) Society," ought not to have been stopped, and no one would find anything wrong in it except those whose minds are already steeped in prudery or moral rottenness, or both. I hope you will succeed in your effort to have the sentence set aside.

H. M. CUNNINGHAM.

Supt. City Schools, Hanover, Kansas.

Dyspepsia Cured after Nashville's Best Physicians Failed

TO THE EDITOR:

Your exercises have been of inestimable value to me. When I started taking your course I had been a constant sufferer from nervous dyspepsia for five months. During that time I had taken treatment from the best physicians of Nashville without effect. But in a few days after taking your exercises I was entirely relieved. So now when I see anybody with indigestion in any form I tell them to write to you for a course of physical culture, because that is the only way to be cured. I shall not try to say any more because my

vocabulary is inadequate to express the value of your system of exercises.

J. C. OLDEN,
2423 Emerson street, Denver, Colo.

Saved from Consumption

TO THE EDITOR:

I have been reading your magazine and practicing physical culture for over five years and have received a great deal of help from both resources. In fact I think the two combined have saved me from consumption, which printers are more especially liable to contract than the followers of most of the other trades and to which I had at first a tendency. I can thank physical culture for being in as good health and as strong physically as I am to-day.

N. W. REEVES,
Foreman *Sentinel* Office, Lincoln, Kansas.

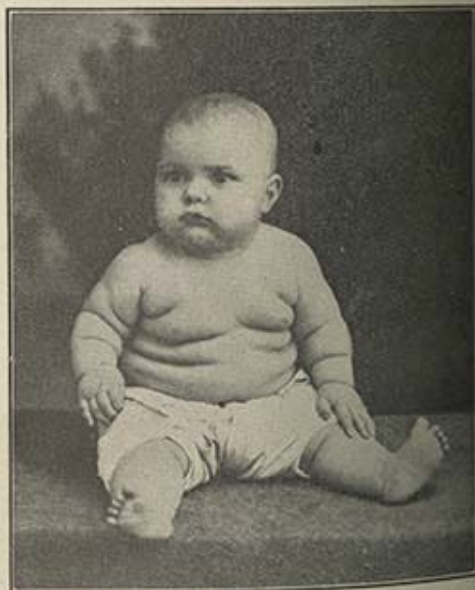
Once Like a Dead Man—Now Able to Work

TO THE EDITOR:

I am still taking treatment under your system and improving slowly. I suffered a nervous break down last New Year's and was in bed five weeks. Then I got up and moved around like a dead man until I got your book. Since then I have been able to work steady. I was such a bad case of wrecked humanity that my friend disliked to meet me. But all of that is changed. Now I am a different man already, and hope to get well in a short time.

Parma, Idaho.

H. BOTES.



My name is Helen Louise Stiles. I am six months young. I weigh twenty-five pounds net. I believe in the doctrine of good health. I like to live out-doors. My food is very plain, just milk and water. My parents do not intend that I shall be vaccinated.

★ **Amazing Results from Following Our Methods**

TO THE EDITOR:

In this letter I wish to thank you from the depth of my heart.

In lauding the editor for his wonderful accomplishments, I do not speak off-hand from what I have read or heard, but from actual experience.

I am a youth of seventeen, and have been an ardent admirer and reader of **PHYSICAL CULTURE** for one year, nevertheless the benefits which I have gotten from adhering to the principles of the magazine have completely changed my life both intellectually and physically.

Before I subscribed for **PHYSICAL CULTURE** I was accustomed to eat a great deal of white bread and meat once a day. This diet seemed to leave a very bad effect upon me.

As soon as I tried your methods a great change immediately came over my body. I started to change my physical condition by keeping my bed-room window open, even on the coldest nights. I gave up eating worthless white bread and substituted whole-wheat bread. Later I started to take cold water baths.

I became so attached to your methods that I joined the local Y. M. C. A., and took daily walks. I gave up meat during the summer months and am now almost a vegetarian.

The results from following out your advice were amazing and even more than I myself had anticipated.

I can not express the gratitude which I owe you for your noble advice. Only continue this good work and I am sure that your fame and glory will be as lasting as the eternal stars above.

ISADOR SCHULMAN.

36 Foster avenue, Schenectady, N. Y.

Professional Boxer who Eats No Meat

Mr. Frederick Thompson, a reproduction of whose photograph appears herewith, is a physical culture boxer. One of his friends states that he had a ten-round boxing contest recently with a professional of several years experience and with seventeen and a half pounds advantage in weight. Notwithstanding this handicap, the contest was declared a draw. Mr. Thompson lives a strictly physical



Fred Thompson, a boxer who is an advocate of the meatless diet.

culture life, confining his diet mostly to fruits, nuts and vegetables. He is 5 feet, 5 inches, in height; weighs 142 pounds, and is finely developed, as will be seen by the accompanying photograph.

Souvenir Post Cards of the Editor



The above are reproductions of six souvenir post cards, showing photographs of the Editor recently taken. The six cards will be sent free with a yearly subscription to **PHYSICAL CULTURE**.

Comment, Counsel and Criticism by Our Readers

If, at any time, there are any statements in **PHYSICAL CULTURE** that you believe to be erroneous or misleading, or any subject discussed regarding which you take issue or upon which you can throw additional light, write to us, addressing letters to this department. We intend to make this a parliament for free discussion. Problems that you would like to see debated, interesting personal experiences, criticisms, reminiscences, odd happenings, etc., are invited. We shall not be able to publish all letters, but will use those of greater interest to the majority of readers. For every letter published we will present the writer, as a mark of our appreciation, with a subscription to **PHYSICAL CULTURE**, to be sent to the writer or to any friend the writer may designate. For the convenience of our office, kindly write us after the publication of your communication, giving name and full address of the person to whom you wish subscription to be sent.—Bernarr Macfadden.

The Body Not Indecent

TO THE EDITOR:

Those prudish cranks who see anything indecent in an unclothed human being, are insulting the Creator of all things, as it was His original intention for mankind to live in that innocent state of nudity.

The Bible quotes in Genesis, chapter 1, verse, 26: "And God said, let us make man in our image, after our likeness."

Verse 27: "So God created man in His own image, in the image of God created He him; male and female created He them."

Verse 28: "And God blessed them, and God said unto them, be fruitful and multiply and replenish the earth, etc."

Now why should we be ashamed to be seen in natural dress?

God in his wisdom knew well enough that the simpler a man lives the happier he is. The unclothed savage man don't need to worry about rent, clothing and food.

The so-called civilized man is never content. The more he has, the more he wants. One wants to show off in clothing and other possessions that he is more important, better, wiser, and of higher quality than his fellow man.

Now if a man in his birthday suit is regarded as indecent, how about the animals? Some religious cranks have gone so far as to make clothing for pet animals.

The civilized man with all his smartness of intellect, earthly possessions, etc., is often more savage in action than primitive savage tribes.

The more the civilized man would see of unclothed human beings, the more he would get used to it, and the less he would think ill of it. It is always the hidden things which excite more curiosity than those things which can be seen.

Why are not certain parts of animals' bodies covered, which are covered even by a wild naked man. Because the civilized man is accustomed to seeing them uncovered, and it has become natural to see animals unclothed. Why can't we human beings be more natural ourselves and get used to seeing ourselves in natural dress?

San Francisco, Cal. FRED WIDEBROOK.

Fighters Lead Moral and Clean Lives

TO THE EDITOR:

I read the article: "The Need of Christian Fighters," by H. W. Hardwick, also the letter by G. S. West, and I don't think they have had much experience with fighters. In the last two years I have trained a dozen boxers in San Francisco, and Oakland, and half of them have never drank or smoked in their lives, and were only too glad to get any advice on diet, several of them only eating two meals per day. The men that dissipate are not the men that become champions, and if you trained a Christian fighter and he got into the championship class he would have to face a man as well trained and as moral; though he might not advertise the fact.

Vancouver, B. C., Canada. G. JOHNSON.

Using the Roof for Exercise

TO THE EDITOR:

The idea has occurred to me that many who live in city apartments, hardly suited for the performance of proper exercises, could obtain a great deal of benefit by using the roofs of their houses. I have used the roof for running and other exercises, and find that with the sensible use of the space, fresh air and sunshine abounding there a great deal of good may be gained. Another thing which many do not seem to appreciate is that the roof makes a good sun parlor. Many hours which are spent in the close rooms below, at study or sewing, could be utilized just as well and with much greater benefit on the roof.

The article in your July issue, signed L. H. Gates, is very good, to my mind. I have gone about in "birthday clothes," whenever possible, for a number of years. As many of us work outside of our homes, the objection may be raised, by women, at least, that they have not the time, but there are many little things that may be done in a girl's own room—besides prayer and exercises, advocated by Mr. Gates—in "negligé uniform," thus requiring no special time for this health-giving enjoyment. I agree with the writer of the article referred to that if all would and could practice nudity—with pure minds—the world would be much better. My own experience has

proved that this practice, together with exercise, breathing and eating in a common sense way, will do much to make and keep people well and strong.

New York City.

OLGA KING.

Growing a New Set of Teeth

TO THE EDITOR:

In a recent issue of your *PHYSICAL CULTURE*, I noticed an article entitled "Can We Grow a New Set of Teeth?" by Geo. H. Wyatt, and thinking that my experience may be of interest, will give you a brief account of it:

One year ago this July I was scuffling and received a blow on the jaw, which broke off a large piece of the right superior second bicuspid exposing the nerve. It pained for about two days. One year later, which was this month, I decided to have it filled. The dentist said the nerve had built out a false dentine; he decided he would have to kill the nerve in order to fill and then crown the tooth. He put strychnine in and after two days removed it, but the nerve was as live as ever. This he repeated four times but the only result was severe pain during the whole time. Will state that the nerve is still alive and pains as badly as ever and I have at this writing a treatment of strychnine in the tooth. The dentist's explanation of this is, as I am a physical culturist I have very healthy nerves. He calls them stubborn and says the nerve is building a false dentine continually, and the nerve refuses to die.

The above goes to show that a man with a perfect physique need never suffer from decayed teeth as the nerves of the teeth will not allow the decay to gain any headway, building a false dentine out faster than the decay can take hold. I believe that prehistoric man had more than two sets of teeth or at least if a tooth was broken off a new tooth was formed in its place and I am of the opinion that if we strictly adhere to the principles advocated by the *PHYSICAL CULTURE* Magazine, and build up a perfect physique, we would eventually retain our teeth until death, and if one was removed a new one would grow in its place, or at least if broken off a new part would grow again.

Will state to those interested that my exercising for over one and one-half years has been wrestling and apparatus work. I am a member of the Kansas City Turnverein and the Y. M. C. A.,

Kansas City, Mo.

O. G. K.

A Preventive of Colds

TO THE EDITOR:

As the climate up here in Manitoba reaches the two extremes, and rapid changes of temperature are common, there follows as a result more unnatural than natural a great deal of suffering from "attacks of colds."

I was at one time a regular victim of these attacks, but I am pleased to say that for a

year and a half I have never had a cold severe enough to interfere with my voice in singing. I use no dope made from laudanum, paregoric, peppermint and anise, and sold as "cough cure."

Every morning on rising I go into the fresh air, and breathe through a spool and the nostrils at the same time, about fifteen times, filling the lungs to their fullest capacity. Following this I take a sponge bath, which completes my morning exercises. As I live a strenuous life I need very little physical exercise. Lastly I wear my underclothes until I feel them getting "heavy" in the spring, for it is a good rule to: "stick to your underclothes till they stick to you!" I firmly believe that no person need have a cold if they will but follow a common sense rule of living.

Neepawa, Manitoba.

EARL MUIR.

Jesus as a Physical Culturist

TO THE EDITOR:

Perusal of the well-thought-out contribution on the above subject in the July number of your magazine, induces me to send you some thoughts on the subject which had previously appeared to me, and which I had more than once mentioned to some minister friends to show that Christ's life gave illustrations of the physical culturist's life, or was a "very healthful life in every way," so as to induce them to follow, teach and preach such life.

He was a believer in exercise: as His journeys on land were always on foot. He was a lover of fresh air as His habit was to sleep in the open and on the house-tops; when journeying on the lakes in the Holy Land He slept on the decks of the fishing-smacks.

Judging from the reproductions of pictures handed down, He wore the scantiest of clothing consistent with decency, so as to permit a free circulation of fresh air about His body. He also wore sandals on His feet.

He appears to have been in the habit of eating the plainest of fare, and as regards wines and spirituous liquors, there is evidence that on one occasion only He took wine, namely at the Sacrament of the Last Supper. It is reasonable therefore to conclude He was not a wine drinker; the more so as He declaimed against wine-bibbers and drunkards and against gluttony.

These are all characteristic of the physical culture life, "the healthful life in every way," and should be seriously regarded by all present-day ministers of the Gospel, of every creed in every clime, many of whose lives are in strong opposition, if not contradiction, to the clear teaching of Christ's plain, simple, strenuous, healthful, life.

A JAMAICAN READER.

Growing New Teeth

TO THE EDITOR:

In a recent number of your magazine, the question is asked: "Can a new set of natural Teeth be Grown in the mouth after the other

Set has worn of fallen out?" This question has not infrequently occurred to me and it looks very reasonable that it could be done.

We know that the hair falls out many times during a lifetime and that other hair is produced in its place. This process will continue as long as a healthful circulation is maintained in the scalp. If the circulation is permitted to die out the hair falls out and is not replaced and baldness is the result.

Now I am a believer in the healing power of the hand. When applied to any part of the body it will develop heat, open the pores of the skin, and increase the circulation of the blood.

When our permanent teeth come, we are young and the circulation is at high tide, but when we have advanced in years to that point where those teeth begin to wear out, the circulation has begun to decline and its power to produce another tooth or set of teeth is gone, just as the scalp wherein the circulation has declined until it is unable to grow more hair.

I believe that the circulation can be accelerated in the jaws sufficiently to grow a third set of teeth, or that the process can be continued indefinitely. My plan is to apply the hand to the external portion of the jaws. This can be done when we retire at night. When sleeping on either side keep the hand between the pillow and the jaws the palm toward the face.

We have often read of instances where persons in advanced life have grown a new set of teeth and it is possible that such persons had unconsciously formed such a habit.

Sunnyhill, Idaho.

S. C. CLAY.

A Mother's Opinions on the Declining Birth Rate

TO THE EDITOR:

I always read your magazines with interest, and I wish I had the ability to write a criticism on some of them occasionally. Lack of education prevents expressing my ideas logically.

You recently published an article by Sidney Cummings, entitled "The Decline in America's Birth Rate." I'll help him solve the problem. I've been the mother of a child on an average of every two years since married. Not from a patriotic spirit, but because I didn't know how not to have them. But I have had them, and therefore have done my part toward preventing the decline. Now, I want to ask, what has the Nation done for me, for doing my part? Has it given me privileges that those women on the fifty blocks in Fifth avenue have not enjoyed! Does it pay my doctor and nurse bills, or assure me that I shall have competent help to help rear this brood?

I admit a couple should have one or two children for their own pleasure, but under existing laws, where one man is privileged to corner the necessities of life—flour, 4½ cents per pound, sugar, 7 cents per pound, etc., and a poor woman is arrested for using one can-

celled stamp (her husband was sick and out of work)—I say a nation that allows such laws to exist *deserves to die out* and any woman who willingly has more than two children is a fool, until we are in some way compensated by the government for our suffering and hard work. A woman who brings four or more children into the world should have a pension, for the good Lord knows she has suffered more than any soldier that ever went to war.

Anyway we don't need more people. Thousands are suffering from mental and physical starvation. "Fewer and better people," should be the cry of the nation.

We women have to suffer anyway—it may as well be for bestowing a blessing on the nation by reducing its population (thwarting the laws of nature), as for increasing it!

Kentucky.

A——. R.——.

Nudity Promotes Morals in South Africa

TO THE EDITOR:

As a late resident of South Africa, where I was occupied in surveying, my business took me a good deal amongst the South African natives, and this truth, "purity in the nude," was forcibly brought home to me. There up to the age of maturity children of both sexes are nude, and even when they attain the age of maturity, a waist cloth, or to use native vernacular a "moocha" is all that is considered necessary, which is practically the same as the nudity.

Yet for all this nudity the native moral and perhaps their physical condition also, is easily of a higher standard than the average white races. One has to travel a long way to find a weak, sickly, or decrepit native. Men and women are alike physically perfect. The average native woman can and does walk forty miles in a day, and carry a load at that.

One interesting thing I have noticed is the growth of the children. Between the ages of about one to three years they are so fat as to make one think that such fatness was unnatural. But this fat evidently has its use, for after three years of age they go thin, so thin that their ribs and other prominent bones are very conspicuous.

Obviously this fat is stored up to assist in the growth of the body which occurs between the age of three or four years and maturity. At that time they fill out to that physical standard which characterizes the South African native.

I cite the foregoing facts as a corroboration of Mr. L. W. Gates' letter in a recent issue, which stated that: "A more extended practice of nudity among all classes of people," would create a cleaner, purer and moral people than the present-day standard of European nations.

We have the proof that nudity means a strong moral and physical race in the native races of South Africa.

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